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TABLE OF CONTENTS

Calendar of Rush Medical College	4
Calendar for the Year 1917-18	5
Rush Medical College, in Affiliation with the University of Chicago	
History	7
Government	7
Affiliation	8
Location	8
Location of the University of Chicago	8
The Board of Trustees of Rush Medical College	9
The Faculty of Rush Medical College	9
Fellows for 1917-18	19
Extra-mural Instructors	20
Officers of Administration	20
The Administrative Board of Medical Affairs	20
Introductory Statement	22
General Regulations	23
The Curriculum	25
Requirements for Admission to the Medical College	26
A. High-School Work Required for Admission to the Junior College (Freshman Class), University of Chicago	26
B. College Work Required for Admission to the Medical Courses	28
C. Requirements for the Combined Course for the Degrees of S.B. and M.D.	28
Total Requirements for the Baccalaureate Degrees	29
Requirements for the Associate's Title	29
Requirements for a Bachelor's Degree	30
Admission to Advanced Standing in the Medical Courses	30
Requirements for Graduation	31
General Information for Students Entering the Freshman and Sophomore Classes	32
Routine of Entrance	32
Fees for Matriculation, Tuition, Deposits, and Apparatus	33
Rooms, Board, and General Expenses	34
Board and Rooms Outside the University	35
General Information for Students Entering the Junior and Senior Classes at Rush Medical College	36
Physician's Fee	37
Young Men's Christian Association	37
The Quarter System	38
The Medical Curriculum as Related to the Quarter System	38
The Summer Quarter	38
Definition of Major and Minor	38
Graduate Courses in Medicine for Physicians and Advanced Students	39
The Work of the Medical Course for the Freshman and Sophomore Years	39
Arrangement of Courses for Six Quarters	40
The Work of the Clinical Years	42
Fifth Year	43

I. Department of Anatomy	43
Department of Zoölogy	46
II. Department of Physiology	51
IIA. Department of Physiological Chemistry and Pharmacology	53
III. Department of Chemistry, Materia Medica, and Toxicology	57
V. Department of Therapeutics and Preventive Medicine	62
VI. Department of Pathology	63
VIA. Department of Hygiene and Bacteriology	65
VII. Department of Medicine	68
VIII. Department of Surgery	74
IX. Department of Obstetrics and Gynecology	77
X. Department of Laryngology and Otology	79
XI. Department of Ophthalmology	81
XII. Department of Skin and Venereal Diseases	82
XIII. General Lectures and Optional Courses	84
Laboratories, Equipment, and Libraries at the University of Chicago:	
The Hull Biological Laboratories	84
The Howard Taylor Ricketts Laboratory	85
The Kent Chemical Laboratory	86
The Libraries	86
Buildings, Equipment, and Hospital Facilities at Rush Medical College	87
Fellowships, Hospital Internes, and Prizes (at Rush Medical College)	92
Scholarships and Other Aid (at the University of Chicago)	95
Fellowships	99
Medical Societies	100
Alumni Association	100
Graduates in the Spring Quarter, 1916	101
Graduates during the Session of 1916-17	103
Matriculates for the Session of 1916-17	106
Summary of Attendance for the Year 1916-17	124

CALENDAR OF RUSH MEDICAL COLLEGE

1917

June 18, Monday.—Summer Quarter begins.
July 2, Monday.—The Fiscal Year of the College begins.
July 4, Wednesday.—Independence Day: a holiday.
July 26, Thursday.—Second Term, Summer Quarter begins.
Aug. 31, Sept. 1, Friday, Saturday.—Quarterly Examinations.
Sept. 1, Saturday.—Summer Quarter ends.
Sept. 2–Sept. 30.—Summer Recess.
Oct. 1, Monday.—Autumn Quarter begins.
Nov. 10, Saturday.—Second Term, Autumn Quarter begins.
Nov. 29, Thursday.—Thanksgiving Day: a holiday.
Dec. 20, 21, 22, Thursday, Friday, Saturday.—Quarterly Examinations.
Dec. 22, Saturday.—Autumn Quarter ends.
Dec. 23–Jan. 1.—Quarterly Recess.

1918

Jan. 2, Wednesday.—Winter Quarter begins.
Feb. 11, Monday.—Second Term, Winter Quarter begins.
Feb. 22, Friday.—Washington's Birthday: a holiday.
March 21, 22, 23, Thursday, Friday, Saturday.—Quarterly Examinations.
March 23, Saturday.—Winter Quarter ends.
March 24–March 31.—Quarterly Recess.
April 1, Monday.—Spring Quarter begins.
May 9, Thursday.—Second Term, Spring Quarter begins.
May 30, Thursday.—Memorial Day: a holiday.
June 10, Monday.—Special Clinics for the Alumni Association.
June 11, Tuesday.—Special Clinics; Class-Day Exercises of the Graduating Class.
June 12, Wednesday.—3:00 P.M., Graduating Exercises; 5:00 P.M., Annual Business Meeting of the Alumni Association; 6:00 P.M., Annual Reception and Dinner of the Faculty and Alumni.
June 13, 14, 15, Thursday, Friday, Saturday.—Quarterly Examinations.
June 15, Saturday.—Spring Quarter ends.

UNIVERSITY CALENDAR FOR THE YEAR 1917-18

1917

June 10	Sunday	Convocation Sunday
June 11	Monday	College Day
June 12	Tuesday	Summer Convocation
June 13	Wednesday	} Quarterly Examinations
June 14	Thursday	
June 15	Friday	
June 15	Friday	Spring Quarter ends
June 18	Monday	Summer Quarter begins
June 18-22		Examinations of the College Entrance Examination Board
July 4	Wednesday	Independence Day: a holiday
July 14	Saturday	Special Examinations for removal of deficiencies (work reported conditioned or incomplete) incurred during the last quarter of residence
July 24	Tuesday	} Examinations for First Term of Summer Quarter
July 25	Wednesday	
July 25	Wednesday	
July 26	Thursday	First Term of Summer Quarter ends
July 26	Thursday	Second Term of Summer Quarter begins
Aug. 26	Sunday	Convocation Sunday
Aug. 30	Thursday	} Examinations for Second Term of Summer Quarter
Aug. 31	Friday	
Aug. 31	Friday	
Aug. 31	Friday	Autumn Convocation
Sept. 3-8		Second Term of Summer Quarter ends
Sept. 3-8		Entrance Examinations
Sept. 27-29		Registration for Autumn Quarter
Sept. 29	Saturday	Special Examinations for all students returning for the Autumn Quarter, who incurred deficiencies (work reported conditioned or incomplete) in the last quarter of residence
Oct. 1	Monday	Autumn Quarter begins
Nov. 29	Thursday	Thanksgiving Day: a holiday
Dec. 16	Sunday	Convocation Sunday
Dec. 18	Tuesday	Winter Convocation
Dec. 19	Wednesday	} Quarterly Examinations
Dec. 20	Thursday	
Dec. 21	Friday	
Dec. 21	Friday	Autumn Quarter ends

1918

Jan. 2	Wednesday	Winter Quarter begins
Jan. 26	Saturday	Special Examination for removal of deficiencies (work reported conditioned or incomplete) incurred during the last quarter of residence

Feb. 12	Tuesday	Lincoln's Birthday: a holiday.
Feb. 22	Friday	Washington's Birthday: a holiday
Mar. 17	Sunday	Convocation Sunday
Mar. 19	Tuesday	Spring Convocation
Mar. 20	Wednesday	} Quarterly Examinations
Mar. 21	Thursday	
Mar. 22	Friday	
Mar. 22	Friday	Winter Quarter ends
Mar. 23-31		Quarterly recess
April 1	Monday	<i>Spring Quarter begins</i>
April 18-19		Annual Conference with Co-operating Schools
April 27	Saturday	Special Examinations for removal of deficiencies (work reported conditioned or incomplete) incurred during the last quarter of residence
May 30	Thursday	Memorial Day: a holiday
June 9	Sunday	Convocation Sunday
June 10	Monday	College Day
June 11	Tuesday	Summer Convocation
June 12	Wednesday	} Quarterly Examinations
June 13	Thursday	
June 14	Friday	
June 14	Friday	Spring Quarter ends

RUSH MEDICAL COLLEGE
IN AFFILIATION WITH
THE UNIVERSITY OF CHICAGO

HISTORY

Rush Medical College is one of the oldest institutions of learning in the Northwest, having been chartered by a special act of the legislature of the state of Illinois in February, 1837. It was founded by the late Daniel Brainerd, who was its first president. The first course of lectures was delivered in the second story of a frame building on Clark Street, near Randolph, in 1843. In 1844 a college building was erected at the corner of Dearborn Avenue and Indiana Street (now Grand Avenue), a structure which was remodeled and enlarged in 1855. In 1867 a larger building was erected on the site of the old one. This edifice was destroyed in the great fire of 1871 and for three years the College occupied a temporary amphitheater in the grounds of the Cook County Hospital, then located at Arnold and Eighteenth streets. In 1875 the present Clinical Building was erected, and in 1893 a Laboratory Building, which greatly increased the facilities for practical instruction, was erected on the south side of Harrison Street, opposite the Clinical Building. The facilities for clinical instruction were largely increased in 1903 by the addition of the Senn Building, seven stories in height, adjoining the Clinical Building on the east. In 1887 the College became the medical department of Lake Forest University, retaining, however, its autonomy. This relation was dissolved by mutual consent in April, 1898, and in the same month the present affiliation with the University of Chicago was established. In 1883 the Presbyterian Hospital, adjoining the College, was established, and the building then erected for the hospital was subsequently enlarged by the addition of the Daniel A. Jones Memorial. In 1908 an affiliation was entered into with the Children's Memorial Hospital similar to that obtaining with the Presbyterian Hospital; in 1911 a similar affiliation was entered into with the Home for Destitute Crippled Children, and in 1915 with the County Home for Convalescent Children and with the St. Joseph's Hospital. Rush Medical College is one of the several institutions officially recognized by the Royal Colleges of Physicians and of Surgeons of London, England.

GOVERNMENT

The government of the College is vested in a "perpetual Board of Trustees" distinct from the teaching force of the College, which was constituted by a special act of the General Assembly of Illinois, in February, 1837, and of which the Governor of the state, the Lieutenant-Governor, and the Speaker of the House of Representatives are members *ex officio*. This board is responsible to the state for the careful management of the financial and educational interests of the College and for the discipline of its students.

AFFILIATION

By the terms of affiliation with the University of Chicago, the Board of Trustees is composed of members not belonging to the teaching force of the College. This board assumes the financial management and appoints the Faculty, but delegates to the latter the control of the educational work subject to the rules of the University and the approval of the Trustees. The affiliation thus assures the maintenance of a higher order of instruction and a steady advance in modern educational methods. The University offers three Fellowships to graduates of the College, yielding the University fees and entitling the holders to the privileges of its biological laboratories. It provides for granting the degree of Bachelor of Science to students of the College who have had suitable preliminary education and who comply with the University regulations established for that degree. The courses of the first two years of the medical curriculum are offered at the University only.

LOCATION

The College is situated on West Harrison Street, between Hermitage Avenue and Wood Street, and can be reached by any of the trains of the Metropolitan Elevated Railway, the Marshfield Avenue station of which is three blocks east of the College; by the Ogden Avenue and Van Buren Street electric lines, which cross Wood Street two blocks north of the College; or by the Harrison Street electric car line, which runs on West Harrison Street.

The telephone number is West 112.

Address all correspondence to RUSH MEDICAL COLLEGE, Chicago, Illinois.

LOCATION OF THE UNIVERSITY OF CHICAGO

The University is situated on the Midway Plaisance between Cottage Grove and Dorchester avenues, and can be reached by the Cottage Grove Avenue electric cars (from Wabash Avenue), by the South Side Elevated Railway, by the Illinois Central Railroad to South Park Station, or by the Sixty-third Street electric cars from the Englewood railway stations.

Mail and baggage service is provided at the Information Office in Cobb Lecture Hall.

The telephone number of the University is Midway 800.

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- WILLIS EUGENE GOUWENS, Curator in Chemistry, University of Chicago.
- ALBERT GORDON BOWER, M.D., Instructor in Bacteriology, University of Chicago.
- BENJAMIN FRANKLIN DAVIS, M.D., PH.D., Instructor in Surgery, 122 South Michigan Boulevard.
- GERALD WENDT, PH.D., Instructor in Analytical Chemistry, University of Chicago.
- LEO FINKELSTEIN, S.B., Instructor in General Chemistry, University of Chicago.
- MAURICE BRAUDE, M.D., Associate in Medicine (Nervous and Mental Diseases), 1100 Independence Boulevard.
- ALFRED MARVIN HALL, M.D., Associate in Clinical Ophthalmology, 25 East Washington Street.
- FREDERICK OLAF FREDERICKSON, M.D., Associate in Medicine, 5937 Broadway.
- ERNEST WILLIAM POTTHOFF, M.D., Associate in Dermatology, 746 South Elmwood Avenue, Oak Park.
- ARTHUR NORTON MACKEY, M.D., Associate in Dermatology, 3420 Sheffield Avenue.
- HENRY WILLIAM ABELMAN, M.D., Associate in Medicine, 6152 Kenmore Avenue.
- CARL H. DAVIS, M.D., Associate in Obstetrics and Gynecology, 25 East Washington Street.
- RAYMOND DAVID MULLINIX, S.B., Associate in Analytical Chemistry, University of Chicago.
- GEORGE THOMAS CALDWELL, A.M., Associate in Pathology, University of Chicago.
- JOHN WOOD MACARTHUR, A.M., Associate in Zoölogy, University of Chicago.

- HARRY G. HARDT, M.D., Associate in Medicine, 6800 Constance Avenue.
- WILLIAM FRANCIS HEWITT, M.D., Associate in Obstetrics and Gynecology, 122 South Michigan Boulevard.
- EMORY HILL, M.D., Associate in Ophthalmology, 30 North Michigan Boulevard.
- EDWARD ALLEN OLIVER, M.D., Associate in Dermatology, 25 East Washington Street.
- BENJAMIN BARKER BEESON, M.D., Associate in Cutaneous Pathology, 32 North State Street.
- WALTER H. O. HOFFMANN, M.D., Associate in Medicine (Pediatrics), 122 South Michigan Boulevard.
- WALTER FRITZ WINHOLT, M.D., Associate in Medicine (Pediatrics), 25 East Washington Street.
- CARL RICHARD MOORE, M.D., Associate in Zoölogy, University of Chicago.
- GEORGE EMANUEL BURGET, S.B., Associate in Pharmacology, University of Chicago.
- HERBERT OTTO LUSSKY, S.B., Associate in Pharmacology, University of Chicago.
- WILLIAM DEGARMO TURNER, S.B., Associate in General Chemistry, University of Chicago.
- THEODORE DROSDOWITZ, M.D., Assistant in Surgery (Genito-urinary), 1656 West Twelfth Street.
- JOHN ALFRED GRAHAM, M.D., Assistant in Surgery, 32 North State Street.
- DAVID C. STRAUS, M.D., Assistant in Surgery, 5 South Wabash Avenue.
- SIGISMUND FRANKLIN WATERMAN, M.D., Assistant in Medicine, 2758 West Madison Street.
- GEORGE EDWARD BAXTER, M.D., Assistant in Medicine (Pediatrics), 4603 Broadway.
- JOHN FRANK WAUGH, M.D., Assistant in Dermatology, 25 East Washington Street.
- CHARLES OTTO CARLSTROM, G.D., Assistant in Kinesitherapy, 108 North State Street.
- CHARLES ALLEN GRIFFITH, M.D., Assistant in Medicine, River Forest, Ill.
- LELAND ELDORUS PHIPPS, M.D., Assistant in Surgery, 4337 Lincoln Avenue.
- EDWIN THOMAS SECOR, M.D., Assistant in Medicine (Nervous and Mental Diseases), LaGrange, Ill.
- CHARLES SCHOTT, M.D., Assistant in Medicine (Pediatrics), 1301 North Clark Street.
- THOMAS P. LYNAM, M.D., Assistant in Surgery (Orthopedic), 3959 West Madison Street.
- ROBERT ORLANDO RITTER, M.D., Assistant in Surgery (Orthopedic), 1200 North State Street.
- NATHANIEL C. NELSON, M.D., Assistant in Surgery (Orthopedic), 1968 Lincoln Avenue.
- JEANNETTE BROWN OBENCHAIN, Ph.B., Technical Assistant in Anatomy, University of Chicago.
- LIBBIE HENRIETTA HYMAN, Ph.D., Assistant in Zoölogy, University of Chicago.
- ALVIN GEORGE FOORD, Laboratory Assistant in Pathology, University of Chicago.
- HENRY JOHNSON ULLMANN, M.D., Assistant in Medicine, Highland Park.
- WALTER HOWARD MEENTS, M.D., Assistant in Surgery, 3201 Franklin Boulevard.

- ALBERT HORR MONTGOMERY, M.D., Assistant in Surgery, 6205 Broadway.
- FRANKLIN BENEDICT MCCARTHY, M.D., Assistant in Surgery, 5536 Sheridan Road.
- LOUIS DANIEL SMITH, M.D., Assistant in Surgery, 25 East Washington Street.
- STEFAN HRYNIEWIECKI, M.D., Assistant in Laryngology and Otolaryngology, 1518 West Division Street.
- HENRY H. KLEINPELL, M.D., Assistant in Medicine (Pediatrics), 48 West Division Street.
- LORIN C. COLLINS, M.D., Assistant in Medicine (Pediatrics), 25 East Washington Street.
- SIGURD KRAFT, M.D., Assistant in Medicine (Pediatrics), 125 East Chicago Avenue.
- SAMUEL NYE CLARK, M.D., Assistant in Medicine (Nervous and Mental Diseases), Kankakee, Ill.
- ROBERT S. BERGHOFF, M.D., Assistant in Medicine, 122 South Michigan Boulevard.
- GEORGE HOWELL COLEMAN, M.D., Assistant in Medicine, 122 South Michigan Boulevard.
- LEE CONNELL GATEWOOD, A.M., M.D., Assistant in Medicine, 122 South Michigan Boulevard.
- MAX BENJAMIN LEVITON, M.D., Assistant in Medicine, 3532 Douglas Boulevard.
- CLAUDE ALLEN LINK, M.D., Assistant in Medicine, 1623 West Van Buren Street.
- ABRAHAM B. RIMMERMAN, M.D., Assistant in Medicine, 3435 Sheffield Avenue.
- FRANK AMOS CHAPMAN, M.D., Assistant in Medicine, 30 North Michigan Boulevard.
- GARAHED A. Z. GARABEDIAN, M.D., Assistant in Medicine (Pediatrics), 4353 North Leavitt Street.
- CECIL THEODOR HEIDEL, M.D., Assistant in Medicine (Pediatrics), 747 Fullerton Parkway.
- SPENCER CORNELIUS DICKERSON, M.D., Assistant in Laryngology and Otolaryngology, 3601 South State Street.
- JOHN DAYHUFF ELLIS, M.D., Assistant in Medicine (Occupational Diseases), 1042 Wilson Avenue.
- RICHARD W. WATKINS, S.B., Assistant in Anatomy, University of Chicago.
- MARION HINES, A.B., Assistant in Anatomy, University of Chicago.
- JOHN GEORGE SINCLAIR, S.B., Assistant in Zoölogy, University of Chicago.
- LLOYD KENDRICK RIGGS, S.M., Assistant in Physiological Chemistry, University of Chicago.
- EDWARD N. ROBERTS, S.B., A.B., Assistant in Chemistry, University of Chicago.
- HOMER HENRY HELMICK, S.B., Assistant in Physical Chemistry, University of Chicago.
- LATHROP EMERSON ROBERTS, S.B., Assistant in Chemistry, University of Chicago.
- BURRELL OTTO RAULSTON, M.D., Assistant in Pathology; Resident Pathologist, Presbyterian Hospital.
- NATHAN SMITH DAVIS, III, M.D., Assistant in Medicine, 7 West Madison Street.
- CHARLES A. SIMA, M.D., Assistant in Medicine, 3602 West Twenty-sixth Street.
- JOHN FAVILL, M.D., Assistant in Medicine, 122 South Michigan Boulevard.
- ARTHUR HABLEY PARMELEE, M.D., Assistant in Medicine (Pediatrics), Oak Park.

- ISADORE LEON MEYERS, M.D., Assistant in Medicine (Nervous and Mental Diseases), 59 East Madison Street.
- EMIL J. HOGGLUND, M.D., Assistant in Surgery (Orthopedic), 736 East Sixty-third Street.
- HARRISON W. MALTBY, M.D., Assistant in Surgery (Orthopedic), 7 West Madison Street.
- JACOB MYERS, M.D., Assistant in Surgery (Orthopedic), 456 West Sixty-third Street.
- ALVIN THOMPSON, M.D., Assistant in Surgery (Genito-urinary), 4 West Ontario Street.
- FREDERIC WILLIAM ROHR, M.D., Assistant in Obstetrics and Gynecology, 2200 Irving Park Boulevard.
- CASSIE BELL ROSE, M.D., Assistant in Obstetrics and Gynecology, 1230 East Sixty-third Street.
- DANIEL M. EISSL, M.D., Assistant in Ophthalmology, 15 East Washington Street.
- CLIFFORD PORTER McCULLOUGH, M.D., Assistant in Medicine, Congress Hotel.
- FRED M. SMITH, M.D., Assistant in Medicine, 122 South Michigan Boulevard.
- ELMER C. LEININGER, M.D., Assistant in Medicine (Pediatrics), 39 East Ohio Street.
- OSCAR ELLIS CHASE, M.D., Assistant in Medicine (Pediatrics), 4601 Broadway.
- LOWELL DELFORD SNORE, M.D., Assistant in Medicine (Industrial), 335 South Central Park Avenue.
- FRANCES E. HAINES, M.D., Assistant in Surgery (Anesthetics), Presbyterian Hospital.
- FREDERICK A. BISDOM, M.D., Assistant in Surgery (Genito-urinary), 1548 Belmont Avenue.
- EARLE B. FOWLER, M.D., Assistant in Ophthalmology, 31 North State Street.
- THOMAS DYER ALLEN, M.D., Assistant in Ophthalmology, 122 South Michigan Boulevard.
- BERTHA MESERVE SHAFER, M.D., Assistant in Dermatology, Rush Medical College.
- VIRGIL D. GREER, M.D., Assistant in Medicine (Pediatrics), Children's Memorial Hospital.
- BENJAMIN RAPPAPORT, M.D., Assistant in Medicine (Pediatrics), Children's Memorial Hospital.
- PEARL M. STETLER, M.D., Assistant in Obstetrics and Gynecology, 456 East Forty-seventh Street.
- WILLIAM RAYMOND MEEKER, S.B., Assistant in Anatomy, University of Chicago.
- SIEGFRIED MAURER, S.B., Assistant in Anatomy, University of Chicago.
- McMICKEN HANCHETT, A.B., M.D., Assistant in Anatomy, University of Chicago.
- CLYDE FRANKLIN WATTS, S.B., Assistant in Anatomy, University of Chicago.
- W. DUNFORD APPELL, Assistant in Zoölogy, University of Chicago.
- EMMA KAHMAN, S.B., Assistant in Physiology, University of Chicago.
- CARL ALBERT DRAGSTEDT, S.B., Assistant in Physiology, University of Chicago.
- MAURICE HOLMES, S.M., Assistant in Physiology, University of Chicago.
- GEORGE FRED SUTHERLAND, A.M., Assistant in Physiology, University of Chicago.
- JOHN CLAUDE WALLER, S.B., Assistant in Physiological Chemistry, University of Chicago.
- HAROLD O. NOLAN, M.D., LL.D., Assistant in Physiological Chemistry, University of Chicago.

- MARGUERITE DAVIS, S.B., Assistant in Physiological Chemistry, University of Chicago.
- RAYMOND CHARLES THOMPSON, S.B., Assistant in Physiological Chemistry, University of Chicago.
- LOUIS M. LARSEN, S.M., S.B., Assistant in Organic Chemistry, University of Chicago.
- JOHN EDWARD SCHOTT, S.B., Assistant in General Chemistry, University of Chicago.
- ELMER N. BUNTING, Assistant in Quantitative Analysis, University of Chicago.
- GEORGE L. CLARK, S.B., Assistant in Chemistry, University of Chicago.
- ARCHIBALD MCPHERSON, S.B., Assistant in Chemistry, University of Chicago.
- SIDNEY WEISMAN, S.B., Assistant in Chemistry, University of Chicago.
- MARY WELTON, S.B., Assistant in Chemistry, University of Chicago.
- MORRIS KHARASCH, S.B., Lecture Assistant in Chemistry, University of Chicago.
- JOHN EVERETT GORDON, S.B., Assistant in Bacteriology, University of Chicago.
- CELESTIN BENNO SEMERAK, M.D., Research Assistant in Pathology, Rush Medical College.
- FREDERICK WILLIAM GAARDE, M.D., *Dane Billings Memorial* Fellow in Medicine, 122 South Michigan Boulevard.
- EDWIN MORTON MILLER, M.D., *Nicholas Senn* Fellow in Surgery, 4736 Irving Park Boulevard.
- GATEWOOD, M.D., *A. D. Thompson-Bevan* Fellow in Surgery and House Surgeon, Presbyterian Hospital.
- WARREN P. SIGHTS, M.D., *Francis A. Hardy* Fellow in Surgery and Assistant House Surgeon, Presbyterian Hospital.
- JAMES HERBERT MITCHELL, M.D., Fellow in Dermatology, Hyde Memorial Fund, 25 East Washington Street.
- PATRICK THOMAS MCCARTHY, M.D., Fellow in Pathology, Rush Medical College.

FELLOWS APPOINTED FOR 1917-18

(IN THE DEPARTMENTS OFFERING MEDICAL COURSES AT THE
UNIVERSITY OF CHICAGO)

- RAY QUINCY BREWSTER, A.M., Chemistry.
- HOWARD BENJAMIN CROSS, A.B., Zoölogy.
- EMANUEL BERNARD FINK, S.B., Pathology.
- HERBERT HIRAM KING, S.M., Chemistry.
- EDWARD CHARLES MASON, A.B., Physiological Chemistry.
- HOWARD E. MIDDLETON, S.B., Hygiene and Bacteriology.
- GEORGE ELMER MILLER, Sc.B., Chemistry.
- DAVID McLAREN, A.M., Chemistry.
- HENRY MAX McLAUGHLIN, A.M., Chemistry.
- BERNARD RAYMOND, S.M., Physiology.
- MARY MEDA RISING, A.B., Chemistry.
- HOWARD MARTIN SHEAFF, A.B., Physiological Chemistry.
- WARREN BRAMAN SMITH, A.B., Anatomy.
- HERMAN VANCE TARTAR, S.B., Chemistry.
- CHARLES EDWARD WATTS, S.B., Pathology.
- BENJAMIN HARRISON WILLIER, S.B., Zoölogy.

EXTRA-MURAL INSTRUCTORS

AT THE HOME FOR DESTITUTE CRIPPLED CHILDREN

WALLACE BLANCHARD, M.D., Assistant Clinical Professor of Surgery (Orthopedic).

AT CHICAGO ISOLATION HOSPITAL

HEMAN SPALDING, M.D., Associate Clinical Professor of Medicine.

AT ST. LUKE'S HOSPITAL

LEWIS L. MACARTHUR, M.D., Assistant Clinical Professor of Surgery.

AT THE CHILDREN'S MEMORIAL HOSPITAL

COLEMAN GRAVES BUFORD, M.D., Assistant Clinical Professor of Surgery.

AT THE COOK COUNTY HOSPITAL

MAY MICHAEL, M.D., Assistant Professor of Medicine (Pediatrics).

AT THE ILLINOIS CHARITABLE EYE AND EAR INFIRMARY

HENRY R. BOETTCHER, M.D., Instructor in Ophthalmology.

OFFICERS OF ADMINISTRATION

AT THE UNIVERSITY OF CHICAGO

HARRY PRATT JUDSON, President of the University, Harper Memorial Library, Room W11.

WALTER A. PAYNE, University Recorder and Examiner, Cobb Lecture Hall, Room 5A.

DAVID ALLAN ROBERTSON, Secretary to the President, Harper Memorial Library, Room W13.

ERNEST DEWITT BURTON, Director of the University Libraries, Harper Memorial Library, Room M27.

JOHN MILTON DODSON, Dean of Medical Students, Cobb Lecture Hall, Room 10A.

MARION TALBOT, Dean of Women, Cobb Lecture Hall, Room 14A.

AT RUSH MEDICAL COLLEGE

FRANK BILLINGS, Dean of the Faculty.

JOHN MILTON DODSON, Dean of Students.

OLIVER SAMUEL ORMSBY, Secretary of the Faculty.

EPHRAIM FLETCHER INGALS, Comptroller.

JAMES H. HARPER, Registrar.

CATHARINE A. McAULIFF, Librarian.

THE ADMINISTRATIVE BOARD OF MEDICAL AFFAIRS

AT THE UNIVERSITY OF CHICAGO

THE PRESIDENT, *Chairman*THE RECORDER, *ex officio*.DEAN JOHN MILTON DODSON, *ex officio*.DEAN JAMES ROWLAND ANGELL, *ex officio*.DEAN LEON CARROLL MARSHALL, *ex officio*.DEAN HENRY GORDON GALE, *ex officio*.DEAN MARION TALBOT, *ex officio*.

DEAN HORATIO HACKETT NEWMAN, *ex officio*.
PROFESSOR JOHN MERLE COULTER.
PROFESSOR ALBERT ABRAHAM MICHELSON.
PROFESSOR NATHANIEL BUTLER.
PROFESSOR SAMUEL WENDELL WILLISTON.
PROFESSOR FRANK BILLINGS.
PROFESSOR LUDVIG HEKTOEN.
PROFESSORIAL LECTURER WALTER STANLEY HAINES.
PROFESSORIAL LECTURER EPHRAIM FLETCHER INGALS.
PROFESSORIAL LECTURER ARTHUR DEAN BEVAN.
PROFESSORIAL LECTURER JOHN CLARENCE WEBSTER.
PROFESSOR JULIUS STIEGLITZ.
PROFESSOR ALBERT PRESCOTT MATHEWS.
PROFESSOR EDWIN OAKES JORDAN.
PROFESSOR FRANK RATTRAY LILLIE.
PROFESSOR ROBERT RUSSELL BENSLEY.
PROFESSOR CHARLES JUDSON HERRICK.
PROFESSOR ROBERT ANDREWS MILLIKAN.
PROFESSOR HARRY GIDEON WELLS.
PROFESSOR ANTON JULIUS CARLSON.
ASSOCIATE PROFESSOR CHARLES MANNING CHILD.
ASSOCIATE PROFESSOR WILLIAM LAWRENCE TOWER.
ASSOCIATE PROFESSOR BASIL COLEMAN HYATT HARVEY.
ASSOCIATE PROFESSOR PRESTON KYES.
ASSISTANT PROFESSOR DAVID JUDSON LINGLE.
ASSISTANT PROFESSOR NORMAN MACLEOD HARRIS.
ASSISTANT PROFESSOR FRANK CHRISTIAN BECHT.
ASSISTANT PROFESSOR ARNO BENEDICT LUCKHARDT.
ASSISTANT PROFESSOR FRED CONRAD KOCH.
ASSISTANT PROFESSOR ELBERT CLARK.
ASSISTANT PROFESSOR JOHN FOOTE NORTON.
DR. E. V. L. BROWN.
DR. GEORGE E. SHAMBAUGH.
DR. JOSEPHINE YOUNG.
DR. GEORGE WILLIAM BARTELMEZ.
DR. PAUL GUSTAV HEINEMANN.
DR. EDWARD FREDERICK HIRSCH.
DR. MORRIS MILLER WELLS.
DR. SHIRO TASHIRO.
DR. CHARLES HENRY SWIFT.
DR. DUDLEY B. REED.
DR. ALBERT GORDON BOWER.
DR. WILLIAM E. CARY.
MR. GEORGE T. CALDWELL.
MR. JOHN WOOD MACARTHUR.
MR. CARL R. MOORE.
MR. GEORGE E. BURGET.
MR. HERBERT OTTO LUSKY.

INTRODUCTORY STATEMENT

FRESHMAN AND SOPHOMORE CLASSES ARE LIMITED TO 100 IN EACH CLASS; THE JUNIOR AND SENIOR CLASSES TO 120 IN EACH CLASS. NO APPLICATION WILL BE RECEIVED AFTER SEPTEMBER 1, 1917.

Students entering with conditions in any branch, or students seeking admission to advanced standing from another medical school, are strongly advised to enter for the Summer Quarter, beginning June 18.¹ The student should, if possible, commence the medical curriculum with the Autumn Quarter in order to pursue the medical courses in proper sequence.

Changes in rules and regulations.—The right is reserved by the Faculty to make changes at any time in requirements for admission, curriculum, fees, or any rules and regulations.

The curriculum.—The curriculum of Rush Medical College, extending over five annual sessions of nine months (three quarters) each, embraces (1) two years of work in the fundamental branches of Anatomy, both gross and microscopic, Neurology, Embryology, Physiology, Physiological Chemistry, Pharmacology, Hygiene and Bacteriology, and Pathology; (2) two years in the clinical branches of Materia Medica, Therapeutics, Clinical Pathology, Medicine, Surgery, Obstetrics, and the special lines of practice; and A FIFTH INTERNE OR ADVANCED WORK YEAR.²

The work of this fifth year will consist of:

A. An internship in a hospital approved by the Faculty and taken under conditions prescribed by the Faculty, or

B. Advanced work as a Fellow or Research Student in one of the departments of the College with the presentation of a thesis embodying original work.

Fundamental branches at the University of Chicago.—The courses in the fundamental branches are offered only at the University of Chicago, in the spacious Hull Biological Laboratories, by instructors whose time is wholly devoted to teaching and investigation in their respective lines. It is believed that the student pursuing these studies in the atmosphere of an institution devoted to scientific work cannot but gain a broader and more thorough conception of these sciences. Such a training will not only afford a better preparation for the clinical courses of the Medical College and for the practice of medicine and surgery, but will also enable the student to follow more easily in paths along which medical advances are being made and to apply these new discoveries in his daily work.

The clinical branches are taught at Rush Medical College, with its Central Free Dispensary, the Presbyterian Hospital, the Children's Memorial Hospital, the Home for Destitute Crippled Children, the Cook County Hospital, the Durand Hospital of the Memorial Institute for Infectious Diseases, and other hospitals in the vicinity of the College.

¹ No student is permitted to begin his medical work with conditions in any of the branches required for admission, especially Physics, Chemistry, and Biology. In these and all other departments of the University of Chicago courses are given in the Summer Quarter by which deficiencies can be made up. For students entering from other medical schools, special review courses are offered in Anatomy, Physiology, and the other fundamental medical sciences, and satisfactory work in these courses will be accepted in lieu of examination on the work of the first two years.

² Since the session of 1905-6, this fifth year has been offered as an optional year, leading to the degree of Doctor in Medicine, "Cum Laude." The increasing demands for internes has made it possible for every graduate of Rush Medical College to secure such a position in a first-class hospital.

The requirements for admission comprise (a) the completion of a four-year high-school course, and, in addition, (b) two years of work in a recognized college or university (see pp. 26-28).

No person should enter upon the study of medicine with a preparation less thorough and comprehensive than that demanded by these minimum requirements. The medical examining boards in several states require this amount of premedical work as a prerequisite for licensure. *Every student should complete a four-year college course, including the physics, chemistry, and biology above mentioned, before entering the Medical School, if his age and other circumstances make it possible for him so to do.* This additional college work should secure for him a greater breadth of culture and a catholicity of interest which will make him a man of larger power, influence, and usefulness in the community.

Admission to advanced standing.—Students or graduates of other medical colleges whose work is recognized by this College may be admitted to advanced standing (see p. 30).

Requirements for graduation.—The minimum requirements for graduation comprise attendance upon four sessions of three quarters (nine months) each, the completion of a prescribed amount of work, the passing of certain examinations both written and practical and the successful completion of the fifth year (see p. 31).

The combined course for the degrees of M.D. and S.B., A.B., or Ph.B.—Attention is called to the fact that courses are offered in the University of Chicago, in the Departments of Art, Literature, and Science, in all the branches of a liberal education (see p. 28).

Higher degrees.—A Master's degree or the degree of Ph.D. may be secured by special work in the medical sciences, and additional residence, in conformity with the regulations of the University covering such degrees.

The elective system.—The work of the medical curriculum is, in part, elective, the choice of the student for each quarter being subject to certain restrictions (see p. 42).

The quarter system.—The College is in session during four quarters each year, and a student may enter at the beginning of any quarter. *Students beginning their medical work, however, are advised to commence with the Autumn Quarter* (see p. 38).

The tuition fee is sixty dollars per quarter, or one hundred and eighty dollars for each of the four annual sessions, this tuition including all laboratory fees (see pp. 33-37).

Student self-help.—Many opportunities are afforded in Chicago for students to earn a portion (and in exceptional cases the whole) of their expenses. A booklet giving fuller information in regard to this matter will be mailed on application.

GENERAL REGULATIONS

Students are admitted to the Medical Courses as medical students (of Rush Medical College), and as (1) *undergraduate students* (candidates for a Bachelor's degree, S.B., A.B., or Ph.B.), or (2) *graduate students*. (*Graduates* of the University of Chicago, or of other universities or colleges of good standing, are admitted to the Medical Courses as graduate students; they are allowed all the privileges of the members of the Graduate Schools of the University.) In

addition to students in regular standing, provision is made for the admission to the University of undergraduate students not seeking degrees. Such students are known as *unclassified students*. They may register for medical subjects, but they are not candidates for the M.D. degree.

1. *Admission.*—(a) Each student must present to the Faculty a certificate of good moral character, signed by at least two physicians of good standing in the state in which the applicant last resided. Blank certificates for this purpose may be had on application to the Dean. (b) He must be able to comply with the requirements for admission to the Medical Courses of the University of Chicago (see pp. 26–28). In brief, they consist of a four-year high-school course plus two years of college work, which must have included Latin, if not taken in high school, Trigonometry, College Physics, General Chemistry, and Biology, and a reading knowledge of German or French. (c) He will matriculate and register as a student of Rush Medical College as well as of the University at the beginning of his medical course. Such matriculation and registration are accomplished at the University without extra fee.

2. *Medical Courses as undergraduate work in the course for a Bachelor's degree.*—(a) The first two years' work in Medicine may be taken as the third and fourth years of the Bachelor of Science course, or, in very large part, of the course for the degree of A.B. or Ph.B. (For requirements, see pp. 28–30.) Students who wish to enter college and prepare to take the medical work as part of their Baccalaureate course may enter at the beginning of the Junior College course (first college year or at any further stage of advancement).¹ (b) Each student must comply with 1(a). (c) In order to comply with the rules of the medical examining boards of several states, a student will matriculate with the Dean of Rush Medical College (at the University) at the beginning of his work in Medicine. He will consult with the Dean of Medical Students each quarter in regard to his work, and take a card of advice to the Dean of the Senior Colleges, with whom the student will continue to register until he receives a Bachelor's degree. *Credit will not be given toward the M.D. degree unless the student complies with this regulation.*

3. *Admission as a graduate student.*—(a) Admission to the Graduate Schools of the University is granted (1) to those who have been graduated from the Colleges of the University of Chicago with the degree A.B., Ph.B., or S.B.; (2) to those holding Baccalaureate degrees from other institutions of good standing. (b) Application for admission in the case of students not graduates of the University should be accompanied by testimonials as to character and scholarship. Such testimonials should take the form of diplomas, written or printed theses, or satisfactory evidence in some other form of the student's fitness for admission. (c) A graduate student taking the Medical Courses must comply with 1(a) and (c). He will consult each quarter with the Dean of Medical Students, and will take a card of advice from him to the Dean of the Graduate School, with whom the student will register. *Credit will not be given toward the M.D. degree unless the student complies with this regulation.* (d) Advanced standing in the Medical Courses is granted for work done in other medical schools according to the conditions stated on p. 30 of this *Circular*.

¹ A student desiring to enter the course as a candidate for the S.B., A.B., or Ph.B. degree is requested to enter into correspondence upon the subject with the University Examiner of the University of Chicago, Chicago, Ill.

4. *Unclassified students.*—Persons at least twenty-one (21) years of age not seeking a degree may be admitted, through the office of the University Examiner, to the courses of instruction offered in the University, as unclassified students, on the following conditions:

1. They shall present (a) credentials showing the completion of work equivalent to the admission requirements of the Colleges, or (b) evidence of successful experience as a teacher or other valuable educative experience in practical life.

2. Each applicant shall present by certificate or examination evidence of training in English at least equivalent to the entrance requirements of the Colleges in that subject. This requirement may be waived in the case of foreign students of ability who have a sufficient knowledge of the English language to profit by the instruction offered.

3. They shall give satisfactory reason for not classifying and becoming candidates for degrees.

4. They enter the University for the purpose of making a study of a definite subject or group of subjects for which adequate preparation has been received. In case of doubt as to the applicant's ability to pursue successfully the work desired, the approval of the instructor to whose courses admission is sought, or of an official representative of the department concerned, will be required.

5. They may not register for elementary courses only, i.e., courses intended for first-year college students.

6. They are subject to the general regulations pertaining to other undergraduates, including attendance at Chapel Assembly and work in Physical Culture.

7. They are ineligible for public appearance.

NOTE.—Students entering the University for the first time should make it a point to complete all arrangements for entrance, either by correspondence or in person, at least two days before the opening of the quarter.

THE CURRICULUM

1. *The fundamental medical branches.*—The course for the first two years' work in Medicine consists mainly of instruction in the fundamental medical sciences. It includes the following courses:

a) *Chemistry*, The Chemistry of Medicinal Drugs, $\frac{1}{2}$ major (85).¹

b) *Anatomy*, $6\frac{1}{2}$ majors as follows: Human Anatomy (Dissecting), $3\frac{1}{2}$ majors (1, 2, 3, 4); Splanchnology, Histology, and Cytology, 1 major (10); Embryology, 1 major (Zoölogy 20 or 21); Neurology, 1 major (Anatomy 17).

c) <i>Physiology</i>	} 6 majors as follows: Physiology, 3 majors (12, 13, 14); Physiological Chemistry, 2 majors (19, and 20); Pharmacology, 1 major (21).
d) <i>Physiological Chemistry and Pharmacology</i> ,	

e) *Pathology*, 2 majors as follows: Pathology, 2 majors (1, 2).

f) *Hygiene and Bacteriology*, $1\frac{1}{2}$ majors as follows: Bacteriology, $1\frac{1}{2}$ majors (2).

g) 2 additional majors in any department or departments of the student's choice, approved by the Faculty.

A total of 18 majors.² All this work is given at the University of Chicago.

¹ The numbers in parentheses refer to the course numbers in the corresponding department.

² For definition of major see p. 38.

2. *The clinical medical branches.*—The work of the last two, or clinical, years comprises the following branches: (a) *Materia Medica, Therapeutics, Medical Jurisprudence, and Preventive Medicine*, at least 2 majors; (b) *Pathology*, at least 1 major; (c) *Medicine*, at least $5\frac{1}{2}$ majors; (d) *Surgery*, at least $5\frac{1}{2}$ majors; (e) *Obstetrics and Gynecology*, at least 3 majors; (f) *Laryngology and Otology*, at least 1.2 majors; (g) *Ophthalmology*, at least .8 major; (h) *Skin and Venereal Diseases*, at least 1 major; (i) additional work in any branch, or branches, of the student's choice, at least 2 majors; a total of 22 majors.

REQUIREMENTS FOR ADMISSION TO THE MEDICAL COLLEGE

These comprise as a minimum (a) the successful completion of a four-year high-school or academy course, qualifying the student to enter the Junior College (Freshman class) of the University of Chicago, and (b) 18 majors (=6 quarters) of the usual college course, or a full equivalent therefor.

A. HIGH-SCHOOL WORK REQUIRED FOR ADMISSION TO THE JUNIOR COLLEGE (FRESHMAN CLASS), UNIVERSITY OF CHICAGO¹

A student must offer for admission 15 units² of credit by examination or by certificate from an approved school from which he has graduated with an average grade higher than the pass mark of the school by at least 25 per cent of the difference between that mark and 100. Among these must be (a) 3 units of English, (b) a "principal group" of 3 or more units, and (c) a "secondary group" of 2 or more units. Of the 15 units 7 must be selected from the subjects named in the groups designated below; 5 may be selected from any subjects for which credit toward graduation is given by the approved school from which the student receives his diploma.

The principal and secondary groups offered may be selected from the following: (1) Greek, (2) Latin, (3) Modern language other than English, (4) History, Civics, and Economics, (5) Mathematics, (6) Physics, Chemistry, Botany, Zoölogy, General Biology, General Science, Commercial Geography, Physiology, Physiography, Geology, Astronomy. To form a language group the units must be all in one language. In other groups any combination of subjects may be made. Credit is not given for less than 1 unit each in Algebra, Plane Geometry, Physics, Chemistry, or a language. In Latin 2 units must be offered if the subject is to be continued in college. Less than $\frac{1}{2}$ unit in any subject is not accepted.

SUMMARY OF ADMISSION REQUIREMENTS

3 units of English.

3 (or more) units in a single group, 1-6.

2 (or more) units in another single group, 1-6.

2 (or less) units in subjects selected from any of the groups 1-6.

[Total 10 units in English and groups 1-6.]

5 units selected from any subjects accepted by an approved school for its diploma.

Entrance with conditions is not permitted.

¹ A complete and more detailed statement of the requirements and the ground covered by each subject will be sent to any principal, teacher, or student on application to the Dean of Medical Students.

² A unit corresponds to a daily recitation of 45 minutes throughout the school year of thirty-six weeks.

Students intending to study medicine are strongly advised to take in the high school 2 units of Latin (Elementary Grammar and Caesar), 3 units of German or French, 1 unit each of Chemistry and Physics—with laboratory work. If these branches have not been taken in the high school, they must be taken as part of the college work required for admission (see section B, p. 28). One-half unit of Trigonometry is strongly advised. A diploma is not accepted as sufficient evidence of such preparation, but specific statement is required as to the amount and character of the work in each branch of study. Blanks are furnished by the University for the presentation of such credits, and will be mailed on application to the University Examiner.

TIME OF PREPARATION—ADMISSION UNITS

Preparation for admission to a Junior College is expected to cover a period of four years in a secondary school (high school or academy) of high grade. Admission credits are reckoned in units. A unit is a course of study comprising not less than 120 clock hours of prepared work. Two hours of laboratory work are regarded as the equivalent of one hour of prepared work.

METHODS OF ADMISSION

Admission to the Junior Colleges of the University may be obtained by one of the following methods: by certificate, by examination, or by a combination of the two methods.

1. *Admission by certificate.*—Students who present credentials showing graduation from any of the following schools and whose course of study covers the entrance requirements indicated above will, upon the recommendation of their respective principals, be admitted without examination: (1) the accredited¹ schools of the University, including (a) schools accredited by the North Central Association of Secondary Schools and Colleges; (b) schools approved by the Board of Admissions after inspection by official representatives of the University; (2) schools accredited by the New England College Entrance Certificate Board; (3) schools outside the territory of the associations above mentioned but accredited by a leading state university whose standards of admission are substantially the same as those of the University of Chicago. The University reserves the right to refuse admission to any student whose preparatory work was of such grade as to create serious doubt of his ability to pursue college work successfully.

2. *Admission by examination.*—Regular entrance examinations are held twice each year, in June and in September, the June examinations being those of the College Entrance Examination Board. The candidate may, at his option, take his examinations at different times, provided that no examination is valid after three years from the date when taken and that no student shall be admitted to examination at more than three regular periods. Students who present by certificate less than 15 units from an accredited school may complete the requirements for admission by examination.

a) *The June examination.*—The examinations held by the College Entrance Examination Board in June of each year will be accepted as a satisfactory substitute for the admission examinations held by the University of Chicago. The

¹The continuation of any school on the accredited list of the University will depend upon the records made in the University by its graduates admitted on certificate.

board's examination this year will be held during the week June 18-22 and the corresponding week of the following year.

All applications for examination must be addressed to the Secretary of the College Entrance Examination Board, 431 West 117th Street, New York, N.Y., and must be made upon a blank form to be obtained from the secretary of the board upon application.

b) *The September examination.*—The September examinations are held at the University. Those for 1917 will be held September 3-8. Applications for admission to these examinations should be made to the University Examiner at least thirty days in advance. Each applicant will pay in advance an examination fee of \$5.00. The University Cashier's receipt for this fee entitles the student to admission to examination in as many subjects as he wishes to take at one time.

c) *Special examinations.*—Students seeking admission at the beginning of the Winter or Spring Quarter may, upon application to the University Examiner at least thirty days in advance, arrange for special examination in subjects in which they are deficient. For admission to such special examination a fee of \$5.00 is charged.

B. COLLEGE WORK REQUIRED FOR ADMISSION TO THE MEDICAL COURSES

Eighteen majors (two years) of college work must have been taken, and this work must have included the following branches:

- (1) Trigonometry, 1 major.
- (2) Chemistry—(a) 3 majors of Inorganic Chemistry (or 2 majors if 1 unit of high-school Chemistry with laboratory work has been taken); (b) 1 major of Organic Chemistry; (c) 1 major of Qualitative Analysis. This work in Chemistry corresponds to the courses Chemistry 1, 2, 3, 4, and 6 (see pp. 59-61). The student is advised to take Quantitative Analysis, but this is not required.
- (3) Physics—4 majors of Physics (or 2 majors if 1 unit of high-school Physics has been taken). This work in Physics corresponds to the courses Physics 1, 2, 3S, and 4S, or 3, 4, and 5 (see p. 57). Trigonometry is a prerequisite.
- (4) 2 majors of General Biology (Zoölogy 1 and Zoölogy 17) (see p. 47).
- (5) A reading knowledge of German or of French (ordinarily 2 units of high-school or 4 majors of college work). This knowledge is determined by an efficiency test given, for 1917-18, about November 24.
- (6) 3 majors of Latin (Caesar and Elementary Grammar) unless 2 units have been completed in high school.
- (7) English—2 majors of college work.

Every student who is considering the question of entering upon the study of medicine is requested to write to the Dean of Medical Students for a blank application for admission, to fill out the same carefully, giving full details of his high-school and college work, and to mail the application, thus completed, to the Dean. He will be informed as promptly as possible as to just what credit he can be given, and in what, if any, branches he is deficient. This will make it unnecessary for the student to estimate closely his own credits, and will secure for him a prompt and definite reply to his inquiry concerning his preparation for the study of medicine.

C. REQUIREMENTS FOR THE COMBINED COURSE FOR THE DEGREES OF S.B. AND M.D.

The college preparation for the Medical Courses may be accomplished at the University of Chicago in six quarters. A student is not admitted to the Medical Courses with conditions, unless he has an equivalent amount of advanced standing

in the medical curriculum (e.g., histology or embryology). *In this case these conditions must have been removed before he can enter upon the work of the second year of the Medical Courses.*

Attention is called to the fact that any credits which may be required in addition to high-school work may be secured in the Colleges of Arts, Literature, and Science of the University of Chicago by attendance during extra quarters before entering the Medical Courses. Students deficient in premedical work are urgently advised to enter the University for the Spring or Summer Quarter, in order to make up deficiencies. Credit will be accepted for such work done in any other college or university of equal standing.

Students seeking a Bachelor's degree (A.B., Ph.B., or S.B.) from the University of Chicago, in connection with the degree of M.D. from Rush Medical College, must comply with the established regulations of the University prescribed for the courses leading to such degrees. As the fundamental branches of the medical curriculum are taught in the University, the student may combine the course for a Bachelor's degree with that for the Medical degree, electing as science courses those offered in the Departments of Anatomy, Physiology, etc., which are also courses in the medical curriculum. The prescribed work for these degrees is indicated on p. 29.

While it is thus possible for one to secure a Bachelor's degree and the degree of M.D. in from six to six and one-half years, every student should secure a more thorough and comprehensive collegiate preparation if it is possible for him so to do. For students taking this broader course the following subjects are recommended as of especial value in preparation for medical study: Greek, 3 majors; Calculus, 1 major; Elementary Botany, 1 major; General Morphology of Thallophytes, 1 major; Zoölogy, 3 majors; Introductory Physiology, 1 major; Physical Chemistry, 1 major; Quantitative Chemical Analysis, 1 major; Physiography, 1 major; Psychology, 2 to 4 majors.

TOTAL REQUIREMENTS FOR THE BACCALAUREATE DEGREES

COLLEGE COURSES

College courses, with few exceptions, are given as "majors," one exercise daily throughout a quarter. Three majors and the required work in Physical Culture constitute full work for a quarter. In comparison with admission credits two majors are reckoned as equal to one unit.

REQUIREMENTS FOR THE ASSOCIATE'S TITLE

During his first two years the student is required to take:

1. Two majors of English (courses 1 and 3). English 1 must be taken in the first quarter of residence.

2. A "continuation group" of three consecutive majors, taken during the first year, which continues the work of either his principal or secondary admission group or of a subject in which he took one unit in the Senior year of high school. Careful consideration should be given to the choice of these courses.

3. Enough majors in each of the following "distribution groups" to make his total (high-school + college) credit in each group 4 majors (=2 units).

- I. Philosophy, History, and Social Science: Departments of Philosophy, Psychology, Education, Political Economy, Political Science, History, History of Art, and Sociology and Anthropology.

II. Foreign Language (all 4 majors in one language): Departments of Greek Language and Literature, Latin Language and Literature, Romance Languages and Literatures, Germanic Languages and Literatures.

III. Mathematics: Department of Mathematics.

IV. Science: Departments of Astronomy and Astrophysics, Physics, Chemistry, Geology and Paleontology, Geography, Zoölogy, Anatomy, Physiology, Botany, Pathology, and Hygiene and Bacteriology.

The title of Associate is conferred upon the completion of 18 majors, with at least 32 grade-points, including the fulfilment of the specified requirements as listed above.

REQUIREMENTS FOR A BACHELOR'S DEGREE

The Bachelor's degree is conferred when the student has completed 36 majors and obtained at least 72 grade-points.¹ These 36 majors shall include one principal sequence of at least 9 coherent and progressive majors taken in one department or in a group of departments and one secondary sequence of at least 6 majors selected from a different department or group of departments. These sequences must have the approval of the Dean. The courses in medicine may be counted in satisfaction of the principal sequence and the premedical courses may be counted in satisfaction of the secondary sequence.

The degree of A.B. is conferred when the principal sequence consists of 11 majors of Latin and 9 majors of Greek (7 if all are taken in the University), including entrance work. A secondary sequence of 6 majors is also required.

The degree of Ph.B. is conferred when the principal sequence has been taken in the Departments of Philosophy, Social Sciences, Language, or Literature.

The degree of S.B. is conferred when the principal sequence has been taken in the Departments of Mathematics or Science.

Mathematics may at the option of the student be used as the principal department for the degree of either Ph.B. or S.B.

ADMISSION TO ADVANCED STANDING IN THE MEDICAL COURSES

Students are admitted to advanced standing in the Medical Courses of the University as follows:

Students from other medical schools whose standards are fully equivalent to those of this institution may receive credit for time spent—estimated in months—and for work successfully completed in such institutions, provided it is equivalent to corresponding work in the Medical Courses in the University. Such a student should give an explicit statement in regard to his preliminary education, in high school or academy and in college, before beginning the study of medicine, the date of beginning and ending of each session attended in a medical college, together with the name of the college and a statement of the studies which he has successfully completed, this latter statement setting forth the exact number of hours given to each subject. The credit claimed in each branch must be passed upon by the Dean of Medical Students or by the head of the corresponding department at the University.

Application blanks.—Blanks for presenting these credits will be furnished on application to the Dean of Medical Students. A student may matriculate at any time in person or by correspondence.

¹ The marking system is fully explained in the *Course Book*, which is issued to each student.

Students seeking admission to advanced standing are urgently advised to enter for the Summer Quarter. Students entering with advanced standing usually find it advantageous and frequently necessary to take additional work in the fundamental medical branches.

REQUIREMENTS FOR GRADUATION

The following are the requirements for the degree of Doctor of Medicine:

The candidate must be not less than twenty-one years of age and must have studied medicine the legal period. He must have paid all dues, must have complied with all the requirements, and must have maintained unexceptionable conduct while at the College.

He must have attended twelve full quarters, or an equivalent amount of time, in a recognized medical school, of which at least the last three quarters must have been taken consecutively in this institution, and forty-five months must have elapsed between the beginning of his first session in a medical school and the date of his graduation. For students graduating in the session of 1917-18 and thereafter, a fifth year as an interne or in advanced work will be required.

He must have completed successfully all of the work required, as follows: 18 majors of work in the Freshman and Sophomore years, comprising a minimum of $6\frac{1}{2}$ majors in Anatomy (from courses offered in the Department of Anatomy and the subdepartment of Embryology; these courses include both Gross and Microscopic Anatomy¹); $5\frac{1}{2}$ majors in Physiology (from courses offered in the Department of Physiology and of Physiological Chemistry and Pharmacology); 2 majors in the Department of Pathology; $1\frac{1}{2}$ majors in the Department of Bacteriology; $2\frac{1}{2}$ majors in one or more of the departments of his choice.²

His work for the first two years must be pronounced satisfactory by the Committee on Promotions, when a certificate for the completion of the first 18 majors of medical work will be issued to him.

Twenty-two majors of work in the Junior and Senior years, comprising a minimum of 2 majors in Pharmacy, Materia Medica, Therapeutics, and Preventive Medicine; 1 major in Pathology; $5\frac{1}{2}$ majors in Medicine; $5\frac{1}{2}$ majors in Surgery, at least 3 majors in Obstetrics and Gynecology,³ at least 2 majors of which must be in Obstetrics; 1.2 majors in Laryngology and Otology; .8 major in Ophthalmology; 1 major in Skin and Venereal Diseases, at least .4 major in each; 2 additional majors in any branch or branches of his choice. These requirements are presented in detail in the departmental statements, pp. 61-84. The Senior year must be taken in consecutive quarters.

He must have passed, successfully, a final examination, both written and practical, in Materia Medica and Therapeutics; Pathology; Medicine; Surgery; Obstetrics and Gynecology; Laryngology and Otology; Ophthalmology; Skin and Venereal Diseases.

He must attend the graduating exercises and receive his diploma in person, unless excused for cause by special action of the Faculty.

¹ They must include the dissection of the lateral half of the human body.

² As to the conditions governing such choice see p. 40, paragraph 4.

³ Each student must have personally attended not less than twelve patients in confinement.

GENERAL INFORMATION FOR STUDENTS ENTERING THE
FRESHMAN AND SOPHOMORE CLASSES

ROUTINE OF ENTRANCE

I. CREDENTIALS

Applications should be addressed to The University of Chicago, or to Rush Medical College, Chicago, Ill. When presenting himself for admission to the University, the student should bring his *admission credits*, if he is entering a Junior College at its beginning; his *letter of dismissal* and an official statement concerning his previous work, if he is entering with advanced standing from another institution; and a *diploma*, if he is applying for admission to a Graduate School.

These documents should be presented at the office of the Dean of Medical Students, Cobb Hall. Detailed directions will be furnished in the Dean's office as to the mode of matriculating and registering for courses of instruction desired.

II. MATRICULATION AND REGISTRATION

1. *Time of registration*.—(a) Students in residence will register on the days announced on the bulletin boards and in the *Weekly Calendar*. (b) Students entering the University for the first time, or resuming work after absence for a quarter, will register on the first day of the quarter.

2. *Order of procedure for new students*.—New undergraduate students will: (a) In case they come from a secondary school or another college present credentials to the Examiner and secure a certificate of admission and a *Course Book*. This should be done by correspondence. New students are urged to send their credentials to the Examiner at least two weeks before they come to register. (b) Matriculate in the office of the Dean of the School or College to which admission is desired. Matriculation is granted on presentation of the proper credentials which entitle the student to enter the University. As evidence of admission the student is given a *matriculation card*. This card should be retained under all circumstances, as it must be shown whenever membership in the University is to be demonstrated. (c) Register in the same office for the courses of study desired for the ensuing quarter. For this purpose the student will be given a *registration card* for the quarter, on which, after consultation with the Dean, the courses desired will be entered. (d) Pay the University fees for the ensuing quarter. In order to do this, the student will present the matriculation card and the proper registration card at the office of the Cashier, Press Building, Room 1. On payment of fees the Cashier will stamp the matriculation card and return it to the student, together with a receipt for tuition fees and for laboratory fees (if any).

Tuition and other fees may conveniently be paid by check to the order of the University of Chicago. Details as to fees will be found below.

The names of the students will be sent to instructors as entitled to attend classes *only after the fees have been paid*, as above specified.

Graduate students follow the procedure above but report to the Dean of the Ogden Graduate School of Science instead of to the Examiner.

FEES FOR MATRICULATION, TUITION, DEPOSITS, AND APPARATUS

1. *Matriculation fee.*—(a) The matriculation fee is \$5.00, and is required of every student on entrance to the University. It is payable but once. (b) A medical student will also matriculate as a student of Rush Medical College. No extra fee is charged, and the matriculation is good for the complete Medical Course, including the clinical years. (c) An undergraduate student, candidate for a Bachelor's degree, who wishes to take the Medical Course as a part of the work for the Bachelor's degree will matriculate also as a student of Rush Medical College at the beginning of the first year of his work in the Medical Course. No extra fee is charged, and the matriculation is good for the complete Medical Course, including the clinical years.

NOTE.—Matriculation for Rush Medical College can be accomplished at the University through the Dean of Medical Students.

2. *Tuition fee.*—(a) The tuition fee for the Medical Courses (3 to 3½ majors each quarter) is \$60.00 per quarter, including all laboratory fees.

Under the medical practice acts and the rules of the medical examining boards of most of the states of this country, an applicant for a license to practice must have attended at least four annual sessions in a recognized medical school. Therefore a student taking the Medical Courses with a view to procuring the degree of M.D. must matriculate as a medical student at least forty-five months before the date of his expected graduation in medicine. From the date of such matriculation he is required to pay the tuition fee for the Medical Courses, whether he is registered as a Senior College student, a graduate student, or otherwise.

In order that a graduate student, Senior or Junior College student, may have his work counted toward the M.D. degree, he must be matriculated as a student of Rush Medical College and must each quarter secure from the Dean of Medical Students a card of advice as to registration, and must present this card to his own Dean on registering with him.

NOTE.—A student who is taking the Medical Courses with no intention of securing the medical degree may, if he prefers, pay the usual University fee of \$50.00 per quarter, with additional laboratory fees as follows:

In Chemistry and all Biological Laboratory courses, \$5.00 for a major course and \$2.50 for a minor course.

Students taking courses prerequisite for admission to the Medical Courses should consult the *Circular of Information* for the Biological Departments.

(b) Students taking two majors or less will pay \$20.00 per major. (c) All tuition and laboratory fees are due and payable on or before the *first* day of each quarter. All fees are payable to the Cashier, Press Building, Room 1.

Registration is not complete until all University bills are paid. Those who fail to meet this obligation within the first five days of the quarter are not regarded as members of the University. After the fifth day, to secure membership in the University, the consent of the Dean and the payment of a fee of \$5.00 for late registration will be required.

3. *Laboratory apparatus and supplies.*—(a) A compound microscope is required for most of the Medical Courses. Every student is strongly advised to purchase a good microscope, with an immersion lens, in order that he may become familiar with the same instrument which he will use after his graduation.

Students not possessing a microscope may rent one from the Laboratory Supply Department at a cost of \$1.50 per quarter for a compound microscope and \$1.00 additional for an immersion lens. (b) All students taking courses in the Department of Physical Culture are required to provide themselves with a gymnasium suit for use in the gymnasium. The cost of such a suit is about \$4.00. (c) Every student taking a course in the Department of Chemistry is required to obtain and deposit with the Curator a \$5.00 coupon ticket to be used in the purchase of necessary apparatus and materials for the laboratory work. A new coupon ticket must be deposited on request of the Curator when materials used and breakage make the replenishment of the deposit necessary, balance of \$2.50 being required at all times. No charges are made against these tickets without the knowledge of the student, and the unexpended balance is refunded to the student when he leaves the Department. (d) A student taking a course in any of the biological departments is required to obtain a \$5.00 coupon ticket for the purchase of apparatus used and materials required in the course. When more than one biological course is taken, a coupon ticket for \$10.00 must be purchased by the student. When the balance for a single course is reduced to \$1.00 or to \$2.00 for more than one course, further deposit of a \$5.00 coupon ticket will be demanded by the Laboratory Supply Department. The balance mentioned is intended to serve as a deposit against avoidable loss, breakage, or damage in the laboratories. Each student will be charged for damage or loss for which he is individually responsible and for his *pro rata* share of damage or loss, the responsibility for which cannot be individually located. The unexpended balance of each biological coupon ticket is refunded to the student shortly after the end of the quarter. (e) A student may procure a skeleton from the Osteological Laboratory on payment of a deposit of \$12.00 for the same, or part of a skeleton on payment of a deposit of \$6.00. The deposit will be refunded when the skeleton (or part) is returned un injured. The necessary textbooks may be purchased at the University Press.

ROOMS, BOARD, AND GENERAL EXPENSES

There are ten dormitories in the University quadrangles. Two of these are reserved for the students of the Divinity School, and five are for women. A University House is organized in each dormitory; each House has a Head appointed by the President of the University, and a House Committee, elected by the members; also a House Counselor, selected from the Faculties of the University by the members of the House. The membership of the House is determined by election, and each House is self-governing under the general control of the University.

The cost of rooms in the dormitories is from \$25.00 to \$75.00 per quarter of twelve weeks. This includes heat, light, and care. Each hall for women has separate dining-hall and parlors. The cost of table board in these halls is \$4.50 per week.

All applications for rooms, or for information concerning rooms and board within or without the quadrangles, should be made to the Cashier.

For further details see special circulars as to rooms and board, which will be sent on application.

The following table will furnish an estimate of the annual expenses for thirty-six weeks of a student in the University residing within the quadrangles:

	Lowest	Average	Liberal
University bill, tuition*.....	\$180.00	\$180.00	\$180.00
Rent and care of room.....	60.00	105.00	225.00
Board.....	135.00	162.00	225.00
Laundry.....	15.00	25.00	35.00
Textbooks and stationery.....	10.00	20.00	50.00
Total.....	\$400.00	\$492.00	\$715.00

* Medical students attending the first quarter must pay the matriculation fee of \$5.00 to the University.

BOARD AND ROOMS OUTSIDE THE UNIVERSITY

The University of Chicago maintains its Housing Bureau in order to assist its students in finding the best accommodations obtainable in the University neighborhood. All rooms listed have been inspected and certain standards are maintained. Rooms on small inclosed courts are not listed, and all householders registered must rent exclusively to men or exclusively to women. The use of a reception room at least two evenings a week must be provided for women students. Students are asked to co-operate by insisting on these requirements even if they do not engage their rooms through the Housing Bureau. Upon their arrival at the University students should apply at once to the Housing Bureau for a list of rooms. Incoming students are especially cautioned against strangers who approach them at the station or on the streets and offer their services in securing rooms.

I. Most students living off the Quadrangles secure furnished rooms, which may be had at prices ranging from \$30 to \$60 a quarter, and take their meals at the University or at restaurants in the neighborhood. It is difficult to find good board by the week or month, and there are only a few places where board and room are offered. As a result, it is customary to pay for each meal separately. Cafeteria service is provided at the University Commons—Ida Noyes Hall for women, and Hutchinson Commons for men. Men occasionally find a small room or a dark room for less than \$30 a quarter, but women usually have to pay \$36 or more. Householders generally prefer men, hence the price level is higher for women. Not less than \$4 a week should be allowed for table board, and one can seldom find a room with outside light, drop light, study table, adequate closet space, and a comfortable bed for less than \$36 a quarter.

II. Desirable furnished rooms for light housekeeping are difficult to find. They range in price from \$16 to \$30 a month. In the University neighborhood there are very few two- or three-room apartments with private bath, and their rental unfurnished is from \$30 a month up. The so-called kitchenettes in the vicinity of the University are small, usually dark, rooms, with a kitchen table and gas plate, but never with running water. Rooms with kitchen privileges are to be had at the regular room rates with an additional charge of about \$6 per quarter.

III. Furnished houses or apartments having from four to ten rooms vary in price from \$35 to \$150 per month.

Lists of rooms may be obtained at the office, Room I, Press Building, about one week before the opening of each quarter. Lists should be obtained in person at this office. Renting by mail is not satisfactory, and students are advised against it.

GENERAL INFORMATION FOR STUDENTS ENTERING THE
JUNIOR AND SENIOR CLASSES AT RUSH
MEDICAL COLLEGE

Attendance.—In order to be credited properly with attendance on any given term or course, it is imperative that students be present at the opening of each quarter. *After the second day of any quarter no student can register except by special consent of the Dean and the payment of \$5.00 late registration fee.* At least 80 per cent of any quarter or of the scheduled hours in any course for which a student is registered must be attended in order to receive credit for the course.

Matriculation.—Each student matriculates on entering the College for the first time, but not for subsequent quarters. Matriculation may be accomplished by mail.

Registration.—Each student registers before or at the beginning of each quarter by the payment of the tuition fee for the quarter and filing a registration card.

In case of early registration this card is retained at the Registrar's office and *must be reclaimed by the student in person on the first or second day of the quarter. If not reclaimed at that time, the student's registration for the quarter will be canceled, and can only be restored by the consent of the Dean and the payment of \$5.00 late registration fee.*

A student, upon entering the College, at the beginning of his first quarter will procure from the Registrar a blank application for admission, fill out the same carefully, and return it to the Registrar, with the matriculation fee, for which he will receive a receipt.

The student will then present himself to the Dean of Students and exhibit to him the credentials for admission to advanced standing (see requirements for admission to advanced standing, p. 30).

The Dean will issue a card certifying admission to the proper class and will advise respecting the courses of study to be taken.

College fees.—(1) Matriculation fee, \$5.00, payable but once. (2) Tuition for each quarter, \$60.00. (3) A compound microscope is required for some of the clinical courses. Every student is strongly advised to purchase a good microscope, with an immersion lens, in order that he may become familiar with the same instrument which he will use after his graduation. Students not possessing a microscope may rent one from the College at a cost of \$1.50 per quarter for a compound microscope and \$1.00 additional for an immersion lens. Each student is required to secure, for use in the clinical laboratories, a hemacytometer (cost, about \$10.00) and a hemoglobinometer or a Talquist scale. (4) A fee of \$15.00 is paid for the out-patient obstetrical work. (5) No student can be assigned to any college work until his fees are paid. (6) The annual ticket for the County Hospital is \$5.00, which is procured from the Warden at the Hospital.

Deposits.—A deposit of \$5.00 is required from each student to cover the cost of unnecessary damage in the College buildings and of avoidable loss and breakage in the laboratories. Deductions will be made from this deposit to cover the cost of articles not returned or of damage to College property. Each student will be charged for damage or loss for which he is individually responsible and

for his *pro rata* share of damage or loss, the responsibility for which cannot be individually located. The deposit must be made on entering the College.

PHYSICIAN'S FEE

Graduates of this College are admitted to all lectures upon the payment of the annual fee of \$5.00. Graduates of other colleges, attending the full course, will pay the fees of undergraduate students, or a physician may pay \$20.00 per month, which entitles him to attend any of the undergraduate courses offered for that period.

The number of persons who may register for some courses is limited. No student or practitioner is admitted to such course beyond the limit specified.

Graduates of this or other colleges who are visiting the city for a brief time are cordially welcomed, but are required to procure complimentary tickets at the office.

No one is authorized to make any modification of the terms regarding fees. On financial matters the Registrar, who represents the Comptroller at the College office, should be consulted.

The right is reserved to make changes in the fees, curriculum, or in any other matter at any time.

Schedule of lecture hours.—Schedules are issued from the College office giving the time of each exercise.

Board and lodging.—Rooms may be obtained in the vicinity of the College at from \$1.50 to \$3.00 per week. Day board may be had at from \$3.00 to \$5.00 per week. Board and room together may be obtained at from \$5.00 to \$7.00 per week. A Bureau of Information is maintained at the College to which students may apply for directions as to desirable board and lodging.

Books and instruments.—The average annual cost of the required books and instruments varies from \$20.00 to \$40.00.

The following table will furnish an estimate of the expenses of a student for each year at Rush Medical College:

	Lowest	Average	Liberal
Tuition for each year.....	\$180.00	\$180.00	\$180.00
Board and room.....	145.00	180.00	252.00
Laundry.....	15.00	21.00	36.00
Books and instruments.....	20.00	40.00	50.00
Incidental expenses.....	45.00	75.00	105.00
Total.....	\$405.00	\$496.00	\$623.00

THE YOUNG MEN'S CHRISTIAN ASSOCIATION

A branch of the Young Men's Christian Association is in active operation at Rush Medical College, and the headquarters of the West Side Association are situated within a short distance of the College buildings. Membership in the Association, with the privilege of gymnasium, bathrooms, lecture courses, etc., may be obtained through the Rush Medical branch at reduced prices. Further information in regard to the Association may be obtained by application to the Rush Medical branch of the Association.

THE QUARTER SYSTEM

The academic year is divided into four quarters. The Summer Quarter is divided into two terms. The year begins with the first day of the Summer Quarter.

The Autumn Quarter begins on October 1, except when this day falls on Sunday, when it begins on October 2; and it ends December 23, except that when this day falls on Saturday or Sunday it ends the preceding Friday (for the clinical courses, Saturday); and when December 23 falls on Monday it ends the preceding Saturday.

The Winter Quarter begins January 2, except when this day falls on Saturday or Sunday, when it begins the Monday following; and it ends on the Friday falling between March 18 and March 24 inclusive (for the clinical courses, Saturday).

The Spring Quarter begins on the Monday falling between March 28 and April 3 inclusive, and ends on the Friday falling between June 12 and 18 inclusive (for the clinical courses, Saturday).

The Summer Quarter begins on the Monday falling between June 15 and 21 inclusive, and ends on the Friday falling between August 28 and September 3 inclusive (for the clinical courses, Saturday).

Official University Holidays are observed on Lincoln's Birthday, Washington's Birthday, Memorial Day, Independence Day, and Thanksgiving Day. When one of these days falls on Sunday, the following Monday shall be observed as a holiday only in the case of Memorial Day and Independence Day.

THE MEDICAL CURRICULUM AS RELATED TO THE QUARTER SYSTEM

The general course of instruction in Rush Medical College requires four years of study in residence, with a minimum of attendance upon three quarters of each year. These years are designated as the Freshman, Sophomore, Junior, and Senior years, respectively.

A student may begin his college work on the first day of any quarter (see, however, p. 40, § 5), and may continue in residence for as many successive quarters as he desires, and will receive credit for work accomplished. Attendance during all the four quarters of the year is optional, but will not secure a time credit of more than one year in a medical school. At least fifty-two months must elapse between the date of the first matriculation and the date of graduation. The Senior year should be taken in three or more consecutive quarters. Under the restriction imposed this system does not conflict with the existing medical-practice acts, nor with the rulings of the various state boards of medical examiners.

THE SUMMER QUARTER

Attention is directed to the special opportunities afforded for medical study in the Summer Quarter. The climate of Chicago is particularly well adapted to midsummer work. Instruction in all departments is given in the Summer Quarter.

DEFINITION OF MAJOR AND MINOR

A Major course is defined as a didactic or recitation course, occupying 5 hours a week for one quarter (a total of 60 hours), or a laboratory, practical, or

clinical course, occupying 10 hours a week for one quarter (a total of 120 hours). A double major occupies twice the number of hours per week for the quarter.

A Minor course is a didactic or recitation course, occupying 5 hours a week for one-half a quarter, of six weeks; or a laboratory course, occupying 10 hours per week for a similar period. The value of each course in the following departmental statements is stated as a *major* (Mj.), a *double major* (DMj.), a *minor* (M.), a *double minor* (DM.), or the decimal fraction of a *major* or *minor*.

GRADUATE COURSES IN MEDICINE FOR PHYSICIANS AND ADVANCED STUDENTS

Opportunities are afforded to physicians and graduate students at Rush Medical College and at the University for advanced and research work in Physics, Chemistry, Zoölogy and Embryology, Anatomy, Neurology, Psychology, Physiology, Physiological Chemistry, and Pharmacology, and in Pathology and Bacteriology in Medicine, Surgery, Obstetrics, Gynecology, and in the other clinical departments. Research work may be conducted independently or under the direction of an instructor in the department to which it belongs.

Physicians are admitted on payment of the matriculation fee and payment of fees in proportion to the amount of work taken (see p. 37). The applicant's fitness for any course which he desires to take should be ascertained by consultation with the heads of the respective departments.

All of the courses offered are well adapted to students of this class, and they are outlined in pp. 44-84 of this *Circular*. Correspondence is invited in reference to special work other than the courses offered. It will be sufficient to address letters in reference to such courses to Rush Medical College.

Students desiring to engage in work leading to the degrees of Master of Science, Master of Arts, Master of Philosophy, or to the degree of Doctor of Philosophy are requested to write for the *Circular* of Information of the Graduate Schools of the University of Chicago.

THE WORK OF THE MEDICAL COURSE FOR THE FRESHMAN AND SOPHOMORE YEARS

1. *Outline of the course.*—The course for the first two years' work in Medicine consists mainly of instruction in the fundamental medical sciences: Human Anatomy, Microscopic Anatomy, Histology, Neurology, Embryology, Physiology, Physiological Chemistry, Toxicology, Pharmacology, Bacteriology, and Pathology. All this work is given at the University of Chicago.

2. *Amount of work.*—The amount of work required is 18 majors.

3. *The curriculum.*—The following courses constitute the curriculum recommended for and pursued by the majority of the students:¹

a) *Chemistry*, The Chemistry of Medicinal Drugs, $\frac{1}{2}$ major (85).²

b) *Anatomy*, $6\frac{1}{2}$ majors as follows: Human Anatomy (Dissecting), $3\frac{1}{2}$ majors (1, 2, 3, 4); Splanchnology, Histology, and Cytology, 1 major (10); Embryology, 1 major (Zoölogy 20 or 21); Neurology, 1 major (Anatomy 17).

¹ Detailed statements concerning the courses are given below under the various departments of instruction. They should be consulted in every case in regard to equivalent courses which may be submitted for those whose numbers are given in the foregoing schedule.

² The numbers in parentheses refer to the course numbers in the corresponding department.

SUMMER QUARTER, 1917—*Continued*

Group I

Neurology, Mj., Anatomy 17
 Prerequisite: Histology
 Bacteriology, 1½Mjs., Bacteriology 2
 Physiological Chemistry, Mj., Physiology 19
 Prerequisite: Organic Chemistry
 †(Organic Chemistry, 1½Mjs., Chemistry 33, 34.)

Group II

Same as Group I

†Organic Chemistry is an entrance requirement and is not considered as a course in Medicine.

AUTUMN QUARTER, 1917

Group I

Histology, Mj., Anatomy 10
 Dissection, 2Mjs., Anatomy 1, 2
 Elective, ½Mj.

Group II

Histology, Mj., Anatomy 10, or
 Embryology, Mj., Zoölogy 20
 Prerequisite: Histology
 Dissection, 1 or 2Mjs., Anatomy 1, 2, or
 Organic Chemistry, Mj., Chemistry 4

WINTER QUARTER, 1918

Group I

Neurology, Mj., Anatomy 17
 Prerequisite: Histology
 Dissection, Mj., Anatomy 3 or 4
 Physiological Chemistry, Mj., Physiology 19
 Prerequisite: Organic Chemistry

Group II

Physiological Chemistry, Mj., Physiology 19
 Prerequisite: Organic Chemistry
 Dissection, 1 or 2Mjs., Anatomy 2 or 3, or
 Histology, Mj., Anatomy 10, or
 Neurology, Mj., Anatomy 17

SPRING QUARTER, 1918

Group I

Physiology, Mj., Physiology 12
 Prerequisite: Physiological Chemistry, Physiology 19
 Embryology, Mj., Zoölogy 20
 Dissection, Mj., Anatomy 3 or 4, or
 Bacteriology, 1½Mjs., Bacteriology 2
 Prerequisite: Physiological Chemistry 19

Group II

Physiology, Mj., Physiology 12
 Prerequisite: Physiological Chemistry 19
 Neurology, Mj., Anatomy 17
 Prerequisite: Histology
 Dissection, Mj., Anatomy 3 or 4, or
 Bacteriology, 1½Mjs., Pathology 21, or
 Physiological Chemistry, Mj., Physiology 20
 (Prerequisite: Physiological Chemistry 19), or
 Embryology, Mj., Zoölogy 20
 Prerequisite: Histology

SUMMER QUARTER, 1918

Group I

Same courses as Summer Quarter, 1916, and
 Physiology, Mj., Physiology 13
 Prerequisite: Physiology 12
 Pharmacology, Mj., Physiology 21
 Prerequisite: Physiology 12, 13, 14, 19, 20.

Group II

Same as Group I

AUTUMN QUARTER, 1918

Group I

Physiology, Mj., Physiology 13
 Prerequisite: Physiology 12
 Physiological Chemistry, Mj., Physiology 20, or
 Dissection, Mj., Anatomy 3 or 4, or
 Bacteriology, 1½Mjs., Bacteriology 2, or
 Pathology, Mj., Pathology 1
 Prerequisite: Bacteriology 2

Group II

Physiology, Mj., Physiology 13
 Prerequisite: Physiology 12
 Physiological Chemistry, Mj., Physiology 20
 (Prerequisite: Physiology 19), or
 Dissection, Mj., Anatomy 3 or 4, or
 Embryology, Mj., Zoölogy 20, or
 Bacteriology, 1½Mjs., Bacteriology 2, or
 Pathology, Mj., Pathology 1
 Prerequisite: Bacteriology 2

WINTER QUARTER, 1919

Group I

Physiology, Mj., Physiology 14
 Prerequisite: Physiology 13
 Pathology, Mj., Pathology 1
 Elective, Mj.

Group II

Same as Group I

SPRING QUARTER, 1919

Group I

Pharmacology, Mj., Physiology 21
 Prerequisite: Physiology 12, 13, 14, 19, 20
 Pathology, Mj., Pathology 2
 Chemistry of Drugs, ½Mj.
 Prerequisite: Organic Chemistry

Group II

Same as Group I

THE WORK OF THE CLINICAL YEARS

Elective and optional courses.—A certain number of courses, especially in the Freshman and Sophomore years of study, are required as essential to securing credit in making up the four-year curriculum which must precede graduation. All of the courses offered in the Junior and Senior years are elective; that is, the student will be required to select from the list of elective courses a number sufficient to insure him credit for about eleven majors each year. The term "major" is fully explained in another paragraph. By this system the student can select, not only his line of study, but also his teachers in such special lines, and can, further, so arrange his work that in successive years he can practically include all branches taught in the College. He will be required to present, however, a minimum amount of credit in each department. See requirements for graduation (p. 31).

Advice by the head of each department as to the recommended sequence of courses is contained in a circular of information issued to each student at the beginning of the Autumn Quarter.

The quarter system with elective courses is especially well adapted to the medical curriculum, and possesses the advantages of allowing each student to select a portion of his studies, and so to adapt his course to his tastes, his abilities, and his needs. The plan is *not* designed, however, to enable a student to prepare for a special line of practice. A broad and thorough education in general medicine is essential for adequate preparation for special practice in later years

Optional courses, in addition to those described above, are offered to students who desire to add to the regular courses as outlined in the requirements for graduation. These optional courses are designed to promote a higher scholarship and to increase facilities for work in special departments.

FIFTH YEAR

OF STUDENTS ENTERING THE MEDICAL COURSES AT THE BEGINNING OF THE SUMMER QUARTER, 1914, OR THEREAFTER, A FIFTH YEAR, HERETOFORE OPTIONAL, WILL BE REQUIRED FOR GRADUATION.

The work of this fifth year will consist of:

A. An internship in a hospital approved by the Faculty and taken under condition prescribed by the Faculty, or

B. Advanced work as a Fellow or Research Student in one of the departments of the College, with the presentation of a thesis embodying original work.

I. THE DEPARTMENT OF ANATOMY

(INCLUDING, AT THE UNIVERSITY, COURSES IN THE DEPARTMENT OF ZOÖLOGY)

OFFICERS OF INSTRUCTION

ROBERT RUSSELL BENSLEY, A.B., M.B., Professor of Anatomy.

CHARLES JUDSON HERRICK, Ph.D., Professor of Neurology.

BASIL COLEMAN HYATT HARVEY, A.B., M.B., Associate Professor of Anatomy.

PRESTON KYES, A.M., M.D., Associate Professor of Preventive Medicine.

GEORGE WILLIAM BARTELMEZ, Ph.D., Assistant Professor of Anatomy.

ELBERT CLARK, S.B., M.D., Assistant Professor of Anatomy.

GEORGE ELMER SHAMBAUGH, M.D., Instructor in Anatomy of the Ear, Nose, and Throat.

CHARLES HENRY SWIFT, M.D., Ph.D., Instructor in Anatomy.

JEANNETTE BROWN OBENCHAIN, Ph.B., Research Assistant in Anatomy.

RICHARD W. WATKINS, S.B., Assistant in Anatomy.

MARION HINES, A.B., Assistant in Anatomy.

WILLIAM RAYMOND MEEKER, S.B., Assistant in Anatomy.

SIEGFRIED MAURER, S.B., Assistant in Anatomy.

McMICKEN HANCHETT, A.B., M.D., Assistant in Anatomy.

CLYDE FRANKLIN WATTS, S.B., Assistant in Anatomy.

FELLOW, 1917-18

WARREN BROMAN SMITH, A.B.

INTRODUCTORY

The Department of Anatomy is organized to provide for instruction and research in vertebrate anatomy, including human anatomy, histology, embryology, and neurology. Two majors of elementary biology (Zoölogy 1 and Botany 1, or their equivalent) are prerequisite for all courses in the Department except course 16.

Students of medicine and other students desiring to study anatomy are strongly recommended to plan their work so that courses in vertebrate anatomy

(Zoölogy 17) and vertebrate embryology precede the work in human anatomy. The recommended order of courses in preparation for work in human anatomy would thus be as follows: Zoölogy 1; Botany 1; Zoölogy 17; Anatomy 10; and Zoölogy 20.

All students taking courses in Anatomy should have a good knowledge of French and German. For graduate students this is indispensable.

PRINCIPAL SEQUENCES

Zoölogy 17, Zoölogy 20, Anatomy 1, 2, 3, 4, 10, 11, 17, 21.

SECONDARY SEQUENCES

Zoölogy 17, Zoölogy 20, Anatomy 10 and three majors selected from Anatomy 1, 2, 3, 4, 17, 21.

CANDIDACY FOR HIGHER DEGREES

All candidates for the degree of Doctor of Philosophy in Anatomy should have undergraduate credit for courses 1, 2, 3, 4, 10, 17, or their equivalent. Graduate courses will be selected after consultation with the Department. Students taking Anatomy as a minor subject for this degree are required to take courses 1, 2, 3, 4, 10, 17, 21, and three majors selected from courses 22-40.

Candidates for the degree of Master of Science in Anatomy are required to take courses in Anatomy amounting to nine majors, of which three majors must be in research work chosen from courses 28, 29, 30, 32, 41, 42, 43.

COURSES OF INSTRUCTION

I. SENIOR COLLEGE COURSES

1, 2, 3, 4, Human Dissection.—The student makes a complete dissection of all structures, using atlases and textbooks as guides. The work is largely independent. Before receiving credit for his final dissection the student will be required to pass an oral examination on the anatomy of the whole body. Laboratory fee, \$5.00 per major. Lectures, 2:00, M., W., F.; laboratory work, 2:00-5:00, M. to F. 3½Mjs. Summer, Autumn, Winter, Spring, ASSOCIATE PROFESSOR HARVEY, ASSISTANT PROFESSOR CLARK, DR. SWIFT, AND ASSISTANTS.

Courses 1 and 2.—Dissection of upper and lower extremities. 1½Mjs.

Course 3.—Dissection of thorax and abdomen. 1Mj.

Course 4.—Dissection of head and neck. 1Mj.

7. Topographical Anatomy.—A laboratory course in human anatomy including regional dissection and the study of models, preparations, and sections. Prerequisite: courses 1, 2, 3, 4. Laboratory fee, \$5.00. Mj. Summer, ASSOCIATE PROFESSOR HARVEY.

10. Histology.—A brief course on the structure of the cell and elementary tissues will be followed by a systematic study of the structure of organs. Laboratory fee, \$5.00. Mj. Summer, ASSISTANT PROFESSOR CLARK; Autumn, ASSISTANT PROFESSORS BARTELMEZ AND CLARK; Winter, PROFESSOR BENSLEY AND ASSOCIATE PROFESSOR KYES.

10A. Histology.—A supplementary course to course 10. ½Mj. Autumn, ASSISTANT PROFESSOR BARTELMEZ.

11. Advanced Histology.—Laboratory fee, \$5.00. Mj. Autumn, PROFESSOR BENSLEY.

16. Elementary Neurology.—Prerequisite: for undergraduate students, elementary biology or human physiology with laboratory work; graduate students may be admitted without this prerequisite. Medical credit in neurology is not given for this course. Mj. Autumn, 8:15 to 10:15, M.-F., PROFESSOR HERRICK.

17. Anatomy of the Nervous System.—An introductory course for medical students and others. Prerequisite: course 10. Laboratory fee, \$5.00. Mj. Summer, ASSISTANT PROFESSOR CLARK; Winter, ASSISTANT PROFESSOR BARTELMEZ; Spring, PROFESSOR HERRICK.

19. Cytology of Nerve Cells.—Hours to be arranged. $\frac{1}{2}$ Mj. Winter, ASSISTANT PROFESSOR BARTELMEZ.

20. Development of the Skeleton.—Hours to be arranged. $\frac{1}{2}$ Mj. Spring, ASSISTANT PROFESSOR BARTELMEZ.

21. Morphology of the Blood.— $\frac{1}{2}$ Mj. Summer and Winter, ASSISTANT PROFESSOR CLARK.

22. Anatomy of the Foetus and Infant.— $\frac{1}{2}$ Mj. Autumn, Winter, and Spring, ASSOCIATE PROFESSOR HARVEY.

II. GRADUATE COURSES

25. Comparative Neurology.—The evolution of the architecture and function of the vertebrate nervous system. Prerequisite: course 16 or 17. Mj. Autumn, PROFESSOR HERRICK.

28, 29, 30. Neurological Research.—Admission to these courses may be obtained only after consultation with the Professor of Neurology. A good knowledge of general anatomy, physiology, and neurology will be required. 3Mjs. or 3DMjs. Autumn and Spring, PROFESSOR HERRICK.

31. Course in Immunity.—Immunization of animals: Cytolysis (including hemolysis and bacteriolysis) agglutination, toxins, etc. An experimentation and conference course. Prerequisite: Bacteriology and General Pathology. Hours to be arranged. Mj. or DMj. Autumn and Spring, ASSOCIATE PROFESSOR KYES.

32. Research in Immunity.—Open to a restricted number of qualified investigators. Mj. of DMj. Autumn, Winter, and Spring, ASSOCIATE PROFESSOR KYES.

34. Origin and History of the Germ Cells.— $\frac{1}{2}$ Mj. Spring, DR. SWIFT.

37. Histology of the Organs of Internal Secretion.—Mj. Spring, PROFESSOR BENSLEY.

38. Morphology of the Blood and Blood-forming Organs.—Mj. Spring, ASSISTANT PROFESSOR CLARK.

39. Organogeny (Human).—A practical course on the development of organs in the human embryo. Prerequisite: Vertebrate Embryology. Laboratory fee, \$5.00. Mj. Spring, ASSISTANT PROFESSOR BARTELMEZ.

40. Advanced Work.—Opportunities are afforded for advanced work in all branches of anatomy. Laboratory fee, \$5.00 per Mj. PROFESSORS BENSLEY AND HERRICK, ASSOCIATE PROFESSOR HARVEY, ASSISTANT PROFESSORS BARTELMEZ AND CLARK.

41, 42, 43. Research Work.—The laboratory is equipped for the investigation of anatomical problems. Suitably trained persons, who have the time to do such work, will be encouraged to undertake it. PROFESSOR BENSLEY, ASSOCIATE PROFESSOR HARVEY, ASSISTANT PROFESSORS CLARK AND BARTELMEZ.

45, 46, 47. Seminar.—A limited number of students may, by arrangement with the Professor of Anatomy, be admitted to a seminar in which subjects of current interest in anatomy will be discussed. $\frac{1}{2}$ Mj. Autumn, Winter, and Spring, PROFESSORS BENSLEY AND HERRICK.

THE DEPARTMENT OF ZOÖLOGY

OFFICERS OF INSTRUCTION

FRANK RATTRAY LILLIE, PH.D., Professor of Embryology and Chairman of the Department of Zoölogy.

CHARLES MANNING CHILD, PH.D., Professor of Zoölogy.

HORATIO HACKETT NEWMAN, PH.D., Professor of Zoölogy and Embryology.

WILLIAM LAWRENCE TOWER, S.B., Associate Professor of Zoölogy.

MORRIS MILLER WELLS, PH.D., Instructor in Zoölogy.

JOHN GEORGE SINCLAIR, S.B., Associate in Zoölogy.

CARL RICHARD MOORE, PH.D., Associate in Zoölogy.

LIBBIE HENRIETTA HYMAN, PH.D., Assistant in Zoölogy.

W. DUNFORD APPELL, Assistant in Zoölogy.

FELLOWS, 1917-18

HOWARD BENJAMIN CROSS, A.B.

BENJAMIN HARRISON WELLIER, S.B.

INTRODUCTORY

The courses in Zoölogy aim to meet the needs of those students who desire to obtain some knowledge of Zoölogy as part of their general education, those who need work in Zoölogy to satisfy the requirements of other departments, and those who propose to specialize in Zoölogy. The leading purpose of the courses is to present the subject-matter of the science, its guiding ideas, its principal subdivisions, its scope, methods, and history, and its relations to other sciences.

Undergraduate work in Zoölogy.—It is advisable that students who propose to specialize in Zoölogy should obtain a broad scientific foundation, including work in the cognate sciences, and a reading knowledge of German and French. More specifically, students specializing in Zoölogy should take 4 or 5 majors in Chemistry, 2 or 3 in Physics, and 1 or 2 in Geology; they should also obtain knowledge of the general principles of microscopical Anatomy, Paleontology, Botany, and Physiology. These courses may be taken concurrently with the work in Zoölogy. Consultation with reference to the sequence of courses taken in the Department is required. (See the *Undergraduate Course Book*.)

SEQUENCES

For students who have had less than a unit of Zoölogy in high school course 1 is prerequisite for all courses except 3, 5, and 7. Students presenting credits for one unit of Zoölogy in high school may begin with course 4 or 15, but will be required to supplement their sequence by taking course 5. Courses 15, 16, and 17 may be taken in any order.

SECONDARY SEQUENCES

a) 5, 15, 16, 17, 18, 19.

b) 5, 4 or 7, 16, 17, 18, 19.

PRINCIPAL SEQUENCES

a) General: Same as six-major group a or b, with the addition of course 40 and two majors selected from 26-35. This sequence is intended primarily for teachers in the secondary schools.

b) Genetics and Experimental Evolution: Same as six-major group *a* or *b*, with courses 30 and 31 (3 Mjs.) added.

c) Ecology and Behavior: Same as six-major group *b*, with the addition of courses 26, 28, and 29.

d) Experimental Zoölogy: Same as six-major group *a* or *b*, with the addition of courses 33, 34, and 35.

COMBINATION NINE-MAJOR SEQUENCES

a) Zoölogy—Botany: Zoölogy 5, 7, 16, 17, 20 and Botany 2 or 3, 7, 8, and 9.

b) Comparative Anatomy: Zoölogy 15, 16, 17, 18, 19; Anatomy 10, 1, 2, 3.

Graduate work in Zoölogy.—Students proposing to undertake graduate work in Zoölogy should have credit for an undergraduate principal sequence in Zoölogy or its equivalent. They should also be grounded in other sciences as noted above; and a reading knowledge of German and French is required for candidacy for the degree of Doctor of Philosophy. The plan of the graduate courses involves three or four majors of formal courses and three majors or more of seminar courses in addition to research work. For the degree of Doctor of Philosophy the research work will usually extend over a period of three years. For the Master's degree Zoölogy 1, 5 or 7, 15, 16, and 17 or their equivalent, eight majors of graduate work, and a dissertation are required.

The Zoölogical Club.—The members of the staff and the advanced students of the Department form a club which meets weekly for the presentation of the research work of members of the Department and for review and discussion of important new literature. The meetings are open to all students in the Department.

COURSES OF INSTRUCTION

Zoölogy 1 or its equivalent is prerequisite for all the Senior College courses in the Department. But course 5 or 7 may be accepted as its equivalent for advanced work in the Department at the option of the instructor offering advanced courses.

I. JUNIOR COLLEGE COURSES

1. *Elementary Zoölogy.*—Lectures and laboratory work constituting an introduction to the general principles and concepts of Zoölogy. Laboratory fee, \$5.00. Mj. Autumn, sec. *a*, PROFESSOR NEWMAN; sec. *b*, DR. WELLS; Winter, sec. *a*, ASSOCIATE PROFESSOR DOWNING; sec. *b*, DR. MOORE; DM. Summer, First Term, PROFESSOR NEWMAN.

4. *Economic and Systematic Entomology.*—The economic and systematic relations of insects. Forms of economic significance are observed and studied in the field; in the laboratory emphasis is laid upon classification characters and upon methods of preserving and identifying insect collections. Laboratory fee, \$2.50 per M. M. or DM. (or may be taken as Mj.) Summer, First Term, or Second Term, DR. WELLS.

5. *Evolution, Genetics, and Eugenics.*—An elementary course dealing with the history and principles of Evolution and Genetics and their application to modern experimental evolution and eugenics. Lectures, reading, and recitations. Mj. Summer and Autumn, ASSOCIATE PROFESSOR TOWER AND MR. MACARTHUR; Spring, PROFESSOR NEWMAN.

7. Field Zoölogy.—A course that deals largely with the laboratory and field identification of birds. The classification, habits, and life-histories of other animals met with in the field receive attention. Lectures, laboratory, and field trips. Week-day field trips confined to the regular laboratory hours. Saturday field trips are optional for the most part. Laboratory fee, \$5.00. Mj. Spring, DR. WELLS.

II. SENIOR COLLEGE COURSES

NOTE.—Courses 15, 16, and 17 constitute a sequence running through the year. In special cases students who have credit for Botany 1, or who have studied Zoölogy in high school, may be admitted to the sequence without other prerequisites. Permission for such registration must be secured from the Department.

14. The Evolution of Man.—The factors of Evolution and their rôle in the physical and social evolution of the human species. Lectures, reports, conferences. Prerequisite: Zoölogy 5. Mj. Winter, ASSOCIATE PROFESSOR TOWER AND MR. SINCLAIR.

15. Invertebrate Zoölogy.—Study of representatives of the lower invertebrate groups, including the anatomy of the adult and the life-history, together with some discussion of the habits and distribution. Prerequisite: Zoölogy 1 or 3 or 5. Lectures, laboratory work, and demonstrations. Laboratory fee, \$5.00. DM. Summer, ———. Mj. Autumn, ASSOCIATE PROFESSOR CHILD.

16. Invertebrate Zoölogy.—Comparative anatomy, development, and phylogeny of invertebrate groups not considered in courses 1 or 15. Prerequisite: Zoölogy 1 or equivalent. Laboratory fee, \$5.00. DM. Summer, Second Term, ———. Mj. Winter, PROFESSOR NEWMAN.

17. Vertebrate Zoölogy.—Comparative anatomy, development, and phylogeny of vertebrates. Prerequisite: Zoölogy 1 or 5 or equivalent. Laboratory fee, \$5.00. DM. Summer, First Term, PROFESSOR NEWMAN; Mj. Winter, sec. a, PROFESSOR NEWMAN; sec. b, MR. SINCLAIR; Spring, sec. a, PROFESSOR NEWMAN; sec. b, MR. SINCLAIR.

18. Embryology.—The early stage of development of invertebrates and vertebrates, including maturation and fertilization of the ovum, cleavage, and the formation of the germ layers; origin of the embryo. Embryological theories. Embryological technique. Prerequisite: Zoölogy 15, 16, 17, or their equivalents. Laboratory fee, \$5.00. Mj. Autumn, PROFESSOR LILLIE.

19. Embryology.—Continuation of course 18. Later development, especially of vertebrates. Prerequisite: Zoölogy 18. Laboratory fee, \$5.00. Mj. Winter, PROFESSOR LILLIE.

20. Vertebrate Embryology (for medical students).—Birds and mammals. Lectures, demonstrations, and laboratory work. Prerequisite: Zoölogy 1 and Anatomy 10 or their equivalents; Zoölogy 17 strongly advised. Laboratory fee, \$5.00. Mj. Autumn, DR. MOORE; Mj. Spring, PROFESSOR LILLIE, DR. MOORE, AND ASSISTANTS; Mj. Summer, DR. MOORE.

26. Animal Behavior and Ecology.—A course dealing with the distribution, behavior, and physiology of animals in general, but with particular reference to the invertebrates and lower vertebrates. Prerequisite: Zoölogy 1 or 7. Laboratory fee, \$2.50 per M. Mj. (or M. First Term), Summer and Autumn, DR. WELLS. [Not given in 1917.]

27. Parasitology.—Animal parasites in their economic relations to man. Special attention is given to the pathogenic protozoa. The parasitic worms are studied in detail; the part that insects play in causation and transfer of disease receives its share of attention. Laboratory and lectures. Prerequisite: two majors of Zoölogy. Laboratory fee, \$5.00. Mj. Spring, DR. WELLS.

28. Entomology.—The morphology, classification, habits, life-histories, and economic relations of insects. Prerequisite: Zoölogy 1. Laboratory fee, \$5.00. Mj. Winter, DR. WELLS.

29. Animal Ecology.—The distribution of animals, both local and world-wide. A study is made of the forms found in the Chicago area and the ecological succession worked out. Lecture, 2 hours a week; field work, 8 hours a week. Prerequisite: Zoölogy 1 and one other major in Zoölogy, preferably 15, 16, or 26. No laboratory fee. Mj. Spring, DR. WELLS.

30. Genetics and Experimental Evolution.—The course uses as far as possible both animal and plant forms to illustrate the principles of Genetics and the problems of Experimental Evolution. The course provides opportunity for practical work and training in the use of modern genetic operations and an introduction to research. Laboratory, conferences, lectures. Prerequisite: Zoölogy 1 and 5, Botany 1, or their equivalent. Laboratory fee, \$5.00. Mj. or DMj. each quarter, ASSOCIATE PROFESSOR TOWER AND MR. SINCLAIR; Summer, ASSOCIATE PROFESSOR TOWER AND MR. SINCLAIR.

31A, B, C. Course 30 continued. Each quarter.

NOTE.—Courses 30 and 31A, B, and C are planned to run continuously throughout the year and work may be started at the beginning of any quarter. The work of the course is entirely individual; each student is given a problem in either the laboratory or library, or both, but students will have opportunity to observe several different lines of work.

33-35. Physiological Zoölogy.—The course is concerned with the physiological and dynamic aspects of Zoölogy and consists primarily of laboratory work, which is supplemented by conferences and reading. Individual work, intended as training in methods, illustrations of principles, and preparation for research, is assigned to each student. Work may begin in any quarter. Prerequisite: Zoölogy 1 (or 15), 16, 17, or their equivalent. Laboratory fee, \$5.00. Mj. or DMj. each quarter, Autumn, Winter, and Spring, PROFESSOR CHILD.

39. Marine Biology (at the Marine Biological Laboratory at Woods Hole, Mass.).—Credit is given at the University of Chicago for courses taken at this laboratory. DMj. Summer, PROFESSORS LILLIE AND NEWMAN.

40. The Teaching of Zoölogy.—This course touches briefly the history of the introduction of science teaching and the significance of the movement, and discusses present tendencies, courses of study, textbooks, and the principles involved in the selection of subject-matter, its arrangement, and presentation. M. Summer, First Term, ASSISTANT PROFESSOR DOWNING.

III. GRADUATE COURSES

45. Physiology of Development.—A consideration of existing data and views as material for a theory of development and heredity. Lectures, conferences, assigned topics. Prerequisite: Zoölogy 18 and 19 or equivalent. Mj. Autumn, PROFESSOR LILLIE.

46. Organic Evolution.—A survey of the concepts of organic evolution; its development; the factors in evolution; modern experimental evolution. Prerequisite: Zoölogy 45 or equivalent. Mj. Winter, ASSOCIATE PROFESSOR TOWER.

47. Individuation and Reproduction.—A consideration of the problem of organic individuality and the processes and conditions of individuation and reproduction. The relations between regulatory processes, experimental reproductions, and the various processes of reproduction in nature. The work of the course will consist of lectures, reports, and discussion of literature and quizzes. Mj. Spring, PROFESSOR CHILD. [Not given in 1918.]

48. Cytological Problems.—Among the subjects considered are: morphology and physiology of the cell, cell division, the cell and the organism in growth, reproduction, and regulation, the various methods of cytological research, their objects and their value. The work of the course consists of lectures, reports, discussions, and quizzes. Mj. PROFESSOR CHILD.

49. Problems in Animal Morphology and Phylogeny.—A course in methods of research for advanced undergraduate and first-year graduate students. Individual instruction and advice will be given as to methods of attacking problems, sources of literature, etc. Simple practice problems will be assigned if desired. M. First Term, Autumn, PROFESSOR NEWMAN.

52. Individual Work in Ecology and Entomology.—Every quarter, Dr. WELLS.

IV. SEMINAR COURSES

60. Problems of Fertilization.—A consideration of the historical development and present status of the problems of fertilization. Prerequisite: Zoölogy 45, 46, and either 47 or 48. Mj. PROFESSOR LILLIE.

60A. The Biology of Sex.—A consideration of the biological problems of sex. Prerequisite: Zoölogy 45, 46, and either 47 or 48. Mj. Spring, PROFESSOR LILLIE. [Not given in 1918.]

61. Bionomic Problems.—The problems of evolution with reference to their relation to external factors, to distribution, and to the interrelation of organisms will be considered. Prerequisite: Zoölogy 45, 46, and either 47 or 48. Mj. or DMj. ASSOCIATE PROFESSOR TOWER AND MR. MACARTHUR. [To be given in 1918.]

61A. Genetics.—The problems of heredity in relation to genetics, to plant and animal breeding, and to eugenics. Prerequisite: same as for course 61. Mj. or DMj. Autumn, ASSOCIATE PROFESSOR TOWER AND MR. MACARTHUR. [To be given in 1917.]

61B. Eugenics.—The problems of Eugenics and human-population problems from the standpoint of organic evolution. ASSOCIATE PROFESSOR TOWER AND MR. MACARTHUR. [To be given in 1919.]

63. The Problem of Reproduction in Organisms.—A study of the facts and theories concerning the various methods of reproduction in organisms; the effect of physiological and physical isolation of parts in nature and experiment; the germ-plasm theory in relation to the data of observation and experiments. Special topics will be assigned to each student for report and discussion. Prerequisite: Zoölogy 45, 46, and 47, or their equivalent. Mj. PROFESSOR CHILD.

64. Senescence and Rejuvenescence.—A study of the facts and theories bearing upon the problem of age in organisms. The physiological and structural changes during aging. The question of rejuvenescence. Prerequisite: Zoölogy 45, 46, and 47 or 48 or their equivalent. Mj. Winter, PROFESSOR CHILD. [Not given in 1913.]

V. RESEARCH COURSES

70. Zoölogical Problems.—Research at the Marine Biological Laboratory, Woods Hole, Mass. Prerequisite: such of the elementary courses as are essential to the special topic undertaken. 2 or 3Mjs. Summer, PROFESSORS LILLIE AND NEWMAN.

71. Zoölogical Problems.—Research. Laboratory fee, \$5.00. 1 to 3Mjs. Summer, ASSOCIATE PROFESSORS TOWER, NEWMAN, AND OTHERS.

72, 73, 74. Zoölogical Problems.—Research work. For graduate students. Prerequisite: training essential to the special topic undertaken. Laboratory fee, \$5.00. 1 to 3Mjs. Autumn, Winter, and Spring, PROFESSORS LILLIE, CHILD, AND NEWMAN AND ASSOCIATE PROFESSOR TOWER.

II. THE DEPARTMENT OF PHYSIOLOGY

OFFICERS OF INSTRUCTION

ANTON JULIUS CARLSON, PH.D., Professor of Physiology and Chairman of the Department.

DAVID JUDSON LINGLE, PH.D., Assistant Professor of Physiology.

ARNO BENEDICT LUCKHARDT, PH.D., M.D., Assistant Professor of Physiology.

FRANK CHRISTIAN BECHT, M.D., PH.D., Assistant Professor of Pharmacology.

FRED TERRY ROGERS, PH.D., Instructor in Physiology.

HERBERT OTTO LUSSKY, S.B., M.D., Associate in Physiology.

EMMA KOHMAN, B.S., Assistant in Physiology.

CARL ALBERT DRAGSTEDT, S.B., Assistant in Physiology.

MAURICE HOLMES REES, B.S., M.S., Assistant in Physiology.

GEORGE FRED SUTHERLAND, A.M., Assistant in Physiology.

FELLOW, 1917-18

BERNARD RAYMOND, S.M.

INTRODUCTORY

The courses of the Department of Physiology are arranged for three classes of students:

I. Junior or Senior College students who wish to acquire a knowledge of the structure and functions of the human body, or who wish to study biology from the physiological side. To satisfy the needs of these students and enable them to cover the subject satisfactorily, a three-major course is given: courses 1, 2, and 3, Introductory Physiology. In order to make it accessible to a large number of students no prerequisites are demanded.¹

II. Students wishing to specialize in Physiology or students of other biological sciences who wish to take minor work in Physiology.

III. Medical students. This work is covered by courses 12, 13, and 14.

For all courses except 1, 2, 3, and 4 General Biology and General Inorganic Chemistry, or equivalent courses, are prerequisite. For each major or double-minor course requiring laboratory work the laboratory fee is \$5.00.

SEQUENCES

The Department recommends that students taking Physiology as a major subject should pursue the following courses in introduction: Physics, 1, 2, 3, 4; Chemistry, 2S, 3S, 4, 6, 8; Physiology 1, 2; Zoölogy 1 or Botany 1B; Geology 1. In addition one course in the Comparative Anatomy of Vertebrates.

PRINCIPAL SEQUENCES

Zoölogy 20, Anatomy 10, Bacteriology 1, Physiology 12, 13, 14, Physiological Chemistry 19, 20, Anatomy 17, or Psychology 1.

SECONDARY SEQUENCES

(Prerequisite: Botany 2B, Physiology 1, 2) Zoölogy 20, Anatomy 10, Physiological Chemistry 19, Bacteriology 1, Physiology 12, 13, Psychology 1.

¹ Students who wish to get the most possible out of the course are strongly urged to take elementary general Chemistry and general Biology before beginning the work. As the accommodations are limited, preference in registration will be given to those students who will arrange their work so as to be able to take 1, 2, and 3.

THE BACHELOR'S DEGREE

Senior College students wishing to take their S.B. degree in Physiology should take courses 1, 2, 12, 13, 14. Courses in Chemistry, Physiological Chemistry, Physics, Histology, Bacteriology, Embryology, and Plant Physiology to the extent of three to four majors may be accepted as part of the total of nine majors required for graduation.

THE MASTER'S DEGREE

The requirements for the Master's degree, if all the work is taken in this Department, are: (1) Research, three majors (course 44); (2) six majors from the Graduate or Senior College courses; (3) thesis. The Senior College courses that may be counted toward the Master's degree are 12, 13, 14.

THE DEGREE OF DOCTOR OF PHILOSOPHY

Courses 12, 13, 14, or their equivalents, are required of all candidates for the Doctor's degree, with Physiology as the major subject. The further selection of courses is arranged in each case by consultation.

COURSES OF INSTRUCTION

I. JUNIOR COLLEGE COURSES

Courses 1, 2, and 3 are intended to familiarize the student with the facts concerning the structure and functions of the human body. Students are urged to take all three courses.

1. Physiology of Blood, Respiration, Digestion, Secretion, and Absorption.—Lectures and laboratory. Laboratory fee, \$5.00. Mj. Autumn and Winter, ASSISTANT PROFESSOR LINGLE and MISS KOHMAN.

2. Physiology of Circulation.—Muscle, peripheral nerves, animal heat, excretion. Laboratory fee, \$5.00. Mj. Winter and Spring, ASSISTANT PROFESSOR LINGLE and MISS KOHMAN.

3. Physiology of the Brain, Cord, Eye, Ear.—Sense of taste, smell, pressure, temperature, and muscle sense. Laboratory fee, \$5.00. Mj. Spring and Autumn, ASSISTANT PROFESSOR LINGLE and MISS KOHMAN.

4. Human Physiology.—Selected topics especially adapted to teachers. Lectures and laboratory work. Laboratory fee, \$5.00. Mj. Summer, DR. ROGERS and MR. SUTHERLAND.

II. SENIOR COLLEGE COURSES

12.¹ Physiology of Blood, Circulation, and Respiration.—Lectures and recitations, 3 hours a week; laboratory work, 6 hours a week. Prerequisite: Physiological Chemistry. Laboratory fee, \$5.00. Mj. Spring, PROFESSOR CARLSON, ASSISTANT PROFESSORS LUCKHARDT and BECHT, and MESSRS. LUSSKY, BURGET, SUTHERLAND, and HAGER; Summer, DR. ROGERS.

13.¹ Physiology of Digestion, Metabolism, Absorption, Secretion, Excretion, Muscles, and Heat.—Lectures and recitations, 3 hours a week; laboratory, 6 hours a week. Prerequisite: Physiology 12. Laboratory fee, \$5.00. Mj. Autumn, PROFESSOR CARLSON, ASSISTANT PROFESSOR LUCKHARDT, and MESSRS. LUSSKY and SUTHERLAND.

14. Physiology of the Nervous System and the Senses.—Lectures, two a week; recitation and conference, one a week; laboratory, 6 hours a week. Prerequisite: Neurology 3. Laboratory fee, \$5.00. Mj. Winter, PROFESSOR CARLSON, ASSISTANT PROFESSOR LUCKHARDT, and MESSRS. LUSSKY, SUTHERLAND, and REES.

¹ Courses 12 and 13 will be repeated in the Summer Quarter, 1917.

16. Special Physiology of Mammals.—Including the experiments not given in the general courses. Prerequisite: Physiology 12, 13, or 14, or equivalent. Laboratory fee, \$2.50. $\frac{1}{2}$ Mj. Summer and Autumn, ASSISTANT PROFESSOR LUCKHARDT AND —.

18. The Principles of Physiology (as they are applied to the clinical examination of the central nervous system and special senses).—Laboratory fee, \$2.50. $\frac{1}{2}$ Mj. Spring and Summer, ASSISTANT PROFESSOR LUCKHARDT.

III. PRIMARILY FOR GRADUATE STUDENTS

31. Special Physiology of the Digestive Tract.—Laboratory fee, \$5.00. Mj. Winter, PROFESSOR CARLSON AND MR. DRAGSTEDT.

32. Special Physiology of the Glands of Internal Secretion.—Laboratory fee, \$5.00. Mj. Autumn and Spring, PROFESSOR CARLSON AND MR. DRAGSTEDT.

33. General and Comparative Physiology.—Lectures and laboratory. Laboratory fee, \$5.00. Mj. Autumn, ASSISTANT PROFESSOR LINGLE.

34. Advanced Physiology of the Central Nervous System.—Prerequisite: Physiology 14. Laboratory fee, \$5.00. Mj. Spring, PROFESSOR CARLSON AND MR. DRAGSTEDT.

41. Seminar: in Physiology.—Weekly. Mj. Summer, Autumn, Winter, and Spring, PROFESSOR CARLSON AND ASSISTANT PROFESSORS LINGLE, LUCKHARDT, AND BECHT.

44. Research Work in Physiology.—Mj. or DMj. each quarter, PROFESSOR CARLSON AND ASSISTANT PROFESSORS LUCKHARDT AND BECHT.

IIA. THE DEPARTMENT OF PHYSIOLOGICAL CHEMISTRY AND PHARMACOLOGY

OFFICERS OF INSTRUCTION

ALBERT PRESCOTT MATHEWS, PH.D., Professor of Physiological Chemistry and Chairman of the Department.

FRED CONRAD KOCH, PH.D., Assistant Professor of Physiological Chemistry.

FRANK CHRISTIAN BECHT, PH.D., M.D., Assistant Professor of Pharmacology.

SHIRO TASHIRO, PH.D., Instructor in Physiological Chemistry.

GEORGE EMANUEL BURGET, S.B., Associate in Pharmacology.

LLOYD KENDRICK RIGGS, M.S., Assistant in Physiological Chemistry.

JOHN CLAUDE WALLER, S.B., Assistant in Physiological Chemistry.

HAROLD O. NOLAN, M.D., LL.D., Assistant in Physiological Chemistry.

MARGUERITE DAVIS, S.B., Assistant in Physiological Chemistry.

RAYMOND CHARLES THOMPSON, S.B., Assistant in Physiological Chemistry.

FELLOWS, 1917-18

EDWARD CHARLES MASON, A.B.

HOWARD MARTIN SHEAFF, A.B.

INTRODUCTORY

Physiological Chemistry, or Biochemistry, has as its field the chemistry of the cells and tissues of plants and animals, the principles of nutrition, the chemistry of the internal secretions, the chemical correlation of the organs of the body, the chemistry of the digestive processes and of the secretions and excretions, the chemical basis of such problems as those of pigmentation, inheritance, fertilization, irritability, and so on. It has to do also with the derangement of chemical

processes in disease. The science thus stands in a close and complementary relation with zoölogy, botany, anatomy, pathology, physical physiology, and bacteriology on the one hand and with chemistry on the other.

Pharmacology deals with the chemistry of drugs, the detection of poisons, the nature and method of action of chemical agents on organisms, and with the alterations of the physiological processes of the body produced by chemical agents of all kinds. It is a kind of bridge between physiology and therapeutics.

Of the courses offered in this Department, 19 and 20 are intended for medical students. They embrace the chemistry of the cells and tissues, of digestion and of the excretions. They are the minimum requirement for students of medicine in Physiological Chemistry. Courses 27 and 28 are arranged for medical and other students who wish a more thorough training in modern methods of chemistry as applied in biology and medicine. Many of the methods studied in these courses are used later in clinical diagnosis.

For graduate students in Biochemistry, or graduate students in other departments, courses 24, 25, and 26 are arranged to cover the general principles of biochemistry, particularly in animals, in a more thorough manner than is attempted in 19 and 20. In addition, courses 37, 38, and 39 give a training in the particular technique used in the quantitative study of the tissues of plants and animals. Courses 37 and 38 will be particularly valuable also for those intending to enter government laboratories for the control of foods and drugs, or commercial laboratories which have to do with food products.

In Pharmacology, course 21 covers the principles of the pharmacodynamic action of drugs and is particularly intended for medical students.

Since the main object of the Department is to increase knowledge in the fields which it covers, students are encouraged to begin their research as soon as possible and even during the last year of their undergraduate work. Graduate students are advised to put their main efforts into research rather than in the taking of courses of instruction. Investigation is the best form of instruction. All graduate students majoring in the Department are expected to take part in the seminars of the Department.

SEQUENCES

Since Physiological Chemistry involves a thorough training in both chemistry and biology it can only be studied after preparation in these other sciences. For that reason it cannot usually be undertaken before the third college year. The college sequence of studies in this Department may embrace for a principal sequence courses 19 and 20, at least three majors of Chemistry, and the other four majors from the Departments of Physiology, Anatomy, Zoölogy, Botany, Bacteriology, or Physics. For the secondary sequence three or four majors of Chemistry, courses 19 and 20, and a major from any other department of science.

The Department recommends that students taking Physiological Chemistry as a major subject should pursue the following courses in introduction: Physics 1, 2, 3, 4; Chemistry 2S, 3S, 4, 6, 8; Physiology 1, 2 or Zoölogy 1 or 15; Botany 1 and 2; Geology 1. In addition, modern languages and one or more courses in Histology and the Comparative Anatomy of Vertebrates, and a course in the Calculus.

THE DEGREE OF DOCTOR OF PHILOSOPHY

In Physiological Chemistry courses 24, 25, and 26, or their equivalent, and three or four majors in special methods and preparations are required of all candidates for the Doctor's degree. Knowledge of physical and organic chemistry and of the literature and history of physiological chemistry are also required. Main emphasis is laid, however, upon ability to do original and accurate research work.

For the degree of Doctor of Philosophy in Pharmacology a thorough knowledge of physiology, physiological chemistry, toxicology, as well as of the history and literature of pharmacology and the completion of original research work is required.

REQUIREMENT FOR A MINOR IN PHYSIOLOGICAL CHEMISTRY

For students taking a full minor in Physiological Chemistry three majors will be credited for work equivalent to courses 12, 13, and 14 in Physiology, or other courses in General and Comparative Physiology, taken elsewhere; in addition six majors selected from courses 14, 25, 26, 27, 28, 29, 30, 37, 38, 39, 42, and 43 are required. For students taking a partial minor in Physiological Chemistry the equivalent of three majors' work in Physiology or Physiological Chemistry taken elsewhere will be accepted in partial fulfillment of the requirement; in addition three majors selected from courses 24, 25, 26, 27, 28, 29, 30, 37, 38, 39, 42, or 54.

THE MASTER'S DEGREE

The requirements for the Master's degree, if all the work is taken in this Department, are: (1) Research, three majors (course 42 or 43); (2) six majors from the Graduate or Senior College courses; (3) thesis. The Senior College courses that may be counted toward the Master's degree are 19, 20, 21, 24, 25, 26.

LABORATORY FEE

A laboratory fee of \$5.00 per major or double minor is charged for each course involving laboratory work. A deposit of \$5.00 for breakage is also required of each student taking laboratory work. Any balance remaining will be returned to the student.

COURSES OF INSTRUCTION

I. SENIOR COLLEGE COURSES

19.¹ Physiological Chemistry.—Chemistry of the carbohydrates, lipins, and proteins and the general chemistry of the cell. Lectures, two a week; recitations, one a week; laboratory, 6 hours a week. Prerequisite: General Chemistry, Qualitative Analysis, and Elementary Organic Chemistry. Quantitative Analysis recommended. Mj. Winter, PROFESSOR MATHEWS; Summer, ASSISTANT PROFESSOR KOCH.

20.¹ Physiological Chemistry.—Chemistry of digestion, metabolism, and excretion. Lectures and recitations, three a week; laboratory, 6 hours a week. Prerequisite: course 19. Mj. Autumn, ASSISTANT PROFESSOR KOCH; Spring, PROFESSOR MATHEWS.

¹ Courses 19 and 20 are required of medical students for credit in Physiological Chemistry.

21. Pharmacology.—Lectures and recitations, three a week; laboratory, 6 hours a week. Prerequisite: Physiology 12, 13, 14, 19, 20. Mj. Winter; repeated, Summer, ASSISTANT PROFESSOR BECHT AND MESSRS. BURGET AND HAGER.

II. PRIMARILY FOR GRADUATE STUDENTS

24. Physiological Chemistry.—Chemistry of the cell constituents, carbohydrates, lipoids, proteins, nucleins. Essentially a repetition of course 19 in the Autumn Quarter for graduate students. Prerequisites as in 19. Assigned readings. Seminar, once a week; laboratory, physiological-chemical preparations, 6 hours a week. Mj. Autumn, PROFESSOR MATHEWS AND DR. TASHIRO.

25. Chemistry of Digestion.—Action of enzymes; digestion; the tissues. A continuation of course 24. Lectures and laboratory as in course 24. Prerequisite: course 24. Mj. Winter, PROFESSOR MATHEWS AND DR. TASHIRO.

26. Chemistry of Metabolism, Nutrition, and the Urine.—Continuation of course 25. Prerequisite: course 25 or its equivalent. Lectures and laboratory as in course 24. Mj. Spring, PROFESSOR MATHEWS AND DR. TASHIRO.

27. Physical-chemical Methods Applied to the Tissues and Liquids of the Body.—Osmotic pressure; hydrogen ion determinations; freezing-points; conductivity; polariscope, etc. Practical work. Mj. or $\frac{1}{2}$ Mj. Autumn and Spring, DR. TASHIRO.

28. Quantitative Methods of Urine Analysis.—Determination of important constituents of the urine. Prerequisite: course 20 or equivalent. $\frac{1}{2}$ Mj. or Mj. Spring, PROFESSOR MATHEWS.

29. Biochemical Preparations.—Mj. Summer, Autumn, and Winter, ASSISTANT PROFESSOR KOCH.

30. Biochemical Preparations.—Continuation of 29. Mj. Summer, Autumn, and Winter, ASSISTANT PROFESSOR KOCH.

37. Methods of Quantitative Analysis in Physiological Chemistry as Applied to Plant and Animal Tissues.—Mj. Winter and Summer, ASSISTANT PROFESSOR KOCH.

38. Methods of Quantitative Analysis in Physiological Chemistry as Applied to Plant and Animal Tissues (continued).—Mj. Autumn and Winter, ASSISTANT PROFESSOR KOCH.

39. Quantitative Microchemical Methods for Studying Cell Respiration.—Mj. or DMj. Autumn, Winter, and Spring, DR. TASHIRO.

40. Seminar: History of Physiology and Biochemistry.—A course of readings of historically important works. Mj. Autumn, PROFESSOR MATHEWS.

42. Research Work in Physiological Chemistry.—Mj. or DMj. each quarter, PROFESSOR MATHEWS, ASSISTANT PROFESSOR KOCH, AND DR. TASHIRO.

43. Research Work in Pharmacology.—Mj. or DMj. each quarter, ASSISTANT PROFESSOR BECHT.

45. Seminar in Biochemistry and Pharmacology.—Discussion of important books and papers. Open to graduate and advanced college students. Weekly. Mj. Autumn, PROFESSOR MATHEWS; Winter, ASSISTANT PROFESSOR KOCH; Spring, DR. TASHIRO; Summer, ASSISTANT PROFESSOR BECHT.

54. General and Comparative Physiology (at the Marine Laboratory at Woods Hole, Mass.).—Credit is given by the University of Chicago for courses taken at this laboratory. DMj. Summer.

III. DEPARTMENT OF CHEMISTRY, MATERIA MEDICA, AND TOXICOLOGY*†

(INCLUDING MEDICAL PHARMACY, AND COURSES IN THE DEPARTMENT OF CHEMISTRY, AT THE UNIVERSITY)

*Department of Chemistry, Toxicology, Materia Medica, and Medical Pharmacy
at Rush Medical College*

OFFICERS OF INSTRUCTION

AT RUSH MEDICAL COLLEGE

WALTER STANLEY HAINES, A.M., M.D., Professor and Head of the Department.

Department of Chemistry, University of Chicago

OFFICERS OF INSTRUCTION

AT THE UNIVERSITY OF CHICAGO

JULIUS STIEGLITZ, PH.D., SC.D., CHEM.D., Professor and Chairman of the Department of Chemistry.

WILLIAM DRAPER HARKINS, PH.D., Professor of Chemistry.

HERMANN IRVING SCHLESINGER, PH.D., Assistant Professor of Chemistry.

JEAN FELIX PICCARD, SC.NAT.D., Assistant Professor of Organic Chemistry.

ETHEL MARY TERRY, PH.D., Instructor in Analytical Chemistry.

* For courses in Physiological Chemistry see the Department of Physiology.

† The courses in Physics recommended to undergraduate students preparing to study medicine are the following courses offered in the Department of Physics:

COURSES OF INSTRUCTION IN THE DEPARTMENT OF PHYSICS

[Courses 3S and 4S (or courses 3, 4, and 5) in Physics, or a full equivalent, are required for admission to Rush Medical College; courses 1 and 2 are prerequisite for other courses in Physics. All of these courses are fully described in the *Circular of Information* of the Colleges, University of Chicago, which may be had on application.]

I. JUNIOR COLLEGE COURSES

1. Elementary Physics.—A first course in the elements of Physics designed primarily for students who do not present entrance Physics. DM. Summer, First Term, MR. KOPPINS AND MR. DARROW; MJ. Autumn, ———.

2. Elementary Physics.—A continuation of the preceding course, covering the subjects of electricity, sound, and light. Prerequisite: course 1. DM. Summer, Second Term, MR. KOPPINS AND MR. DARROW; MJ. Winter, ———.

3. Mechanics.—A general college course in mechanics presented mainly from the experimental point of view, but including one demonstration lecture each week. Prerequisite: entrance Physics or course 2. MJ. Autumn, 5 sections, DR. LEMON, DR. SOUDER, AND DR. DEMPSTER.

4. Heat, Electricity I.—A general college course in molecular physics and heat, and beginning electricity, presented mainly from the experimental point of view, but including one demonstration lecture each week. Prerequisite: course 3. MJ. Winter, 4 sections, DR. LEMON, DR. SOUDER, AND DR. DEMPSTER.

5. Electricity II, Sound and Light.—A general college course continuing electricity, from course 4, and followed by sound and light, presented mainly from the experimental point of view, but including one demonstration lecture each week. Prerequisite: course 4. MJ. Spring, 4 sections, DR. LEMON, DR. SOUDER, AND DR. DEMPSTER.

3S. Mechanics, Molecular Physics and Heat.—A general college course in mechanics, molecular physics and heat presented from the experimental point of view, not containing demonstration lectures. Prerequisite: entrance Physics or course 2 and Trigonometry. MJ. Summer, 2 sections, MR. DARROW AND MR. KOPPINS; Winter, 2 sections, DR. SOUDER AND MR. WATSON.

4S. Electricity, Sound, and Light.—A general college course in electricity, sound and light presented from the experimental point of view, not containing demonstration lectures. Prerequisite: course 3S or courses 3 and 4. MJ. Summer, 2 sections, DR. SOUDER AND MR. WATSON; Spring, 2 sections, DR. SOUDER AND MR. WATSON.

JOHN WILLIAM EDWARD GLATTFELD, Ph.D., Instructor in Organic Chemistry.
GERALD WENDT, Ph.D., Instructor in Analytical Chemistry.
T. DALE STEWART, Ph.D., Instructor in Inorganic Chemistry.
LEO FINKELSTEIN, B.S., Instructor in General Chemistry.
WILLIS EUGENE GOUWENS, Curator.
RAYMOND DAVID MULLINX, S.B., Associate in Analytical Chemistry.
WILLIAM DEGARMO TURNER, S.B., Associate in General Chemistry.
EDWARD N. ROBERTS, B.S., Assistant in Chemistry.
HOMER HENRY HELMICK, S.B., Assistant in Physical Chemistry.
LOUIS M. LARSEN, S.B., M.S., Assistant in Organic Chemistry.
LATHROP EMERSON ROBERTS, S.B., Assistant in Chemistry.
JOHN EDWARD SCHOTT, S.B., Assistant in Chemistry.
ELMER N. BUNTING, Assistant in Quantitative Analysis.
GEORGE L. CLARK, S.B., Assistant in Chemistry.
SIDNEY WEISMAN, S.B., Assistant in Chemistry.
MARY WELTON, S.B., Assistant in Chemistry.
ARCHIBALD MCPHERSON, S.B., Assistant in Chemistry.
MORRIS KHARASCH, S.B., Lecture Assistant.

MARTIN A. ROSANOF, Sc.D., Professor of Theoretical Chemistry, University of Pittsburgh, Professorial Lecturer, Spring Quarter, 1917.
MOSES GOMBERG, Ph.D., Professor of Organic Chemistry, University of Michigan, First Term, Summer Quarter, 1917.
STANLEY DAVIS WILSON, Ph.D., Assistant Professor of Chemistry, Rice Institute (Summer Quarter).

FELLOWS, 1917-18

RAY QUINCY BREWSTER, B.S.
HERBERT HIRAM KING, B.A., M.A., M.S., Loewenthal Fellow.
MARY MEDA RISING, A.B., Edith Barnard Fellow.
DAVID MCLAREN, A.B., A.M.
HENRY MAX MCLAUGHLIN, S.B., A.M.
GEORGE ELMER MILLER, S.B.
HERMAN VANCE TARTAR, S.B., Swift Fellow.

INTRODUCTORY

In this Department are offered (1) courses which are suited for providing the preparation in the science of Chemistry that is indispensable to the study and practice of medicine; (2) courses which afford the student an opportunity for acquiring a more thorough and complete preparation for following intelligently the rapid advances in modern physiology and other medical subjects; and (3) courses which are indispensable for those who intend to assist in this advance by devoting themselves in part or exclusively to research in medical subjects after completing their medical course.

REQUIREMENTS AND ELECTIVES IN CHEMISTRY

General Organic Chemistry and Qualitative Analysis are now a prerequisite to the medical courses proper. The necessary knowledge of the subject can be obtained from Chemistry 1, 2, 3, 4, and 6, or Admission Chemistry and 2S, 3S, 4, and 6.

Organic Chemistry 33 and 34 (2Mjs.), Summer Quarter, or Organic Chemistry 30 and 31 (2Mjs.), Autumn and Winter Quarters (see below), may be substituted for course 4.

Students who are preparing for the study of Medicine, and who are candidates for a Bachelor's degree in the University of Chicago, are strongly recommended to take at least one and one-half or two majors more of Chemistry, viz., Quantitative Analysis 8 (1Mj.), or 8M ($\frac{1}{2}$ Mj.), and Physical Chemistry 60 or 61.

Candidates for a Bachelor's degree who expect to do research work in Physiology or allied medical subjects may with advantage elect further courses from the following: Organic Chemistry 30, 31, 32; Physical Chemistry 62; Special Methods of Quantitative Analysis 13-19.

COURSES OF INSTRUCTION

NOTE.—After course 9 the courses are arranged in groups according to subjects: courses 10-19 include courses in Analytical Chemistry, 30-49 in Organic Chemistry, 50-59 in Inorganic Chemistry, 60-79 in Physical Chemistry and Radioactivity; 80-89 are general in nature and 90-100 are research courses. Nos. 10-19, 30-34, 40-43, 60, 61, 62, and 63-71 are open to, and suitable for, Senior College students.

I. PRIMARILY FOR THE JUNIOR COLLEGES

1. Elementary General Chemistry: Inorganic I.—Prerequisite: preparatory Physics. DM. Summer, First Term. Classroom, 6 hours a week; laboratory, 12 hours a week; DR. STEWART. Mj. Autumn. Classroom, 3 hours a week; laboratory, 6 hours a week; ASSISTANT PROFESSOR SCHLESINGER AND DR. FINKELSTEIN.

2. General Chemistry: Inorganic II (continuation of course 1).—Prerequisite: course 1. DM. Summer, Second Term, DR. STEWART; Mj. Winter, ASSISTANT PROFESSOR SCHLESINGER AND DR. FINKELSTEIN.

NOTE.—Course 2, Winter Quarter, is a continuation of course 1, but may be entered by those having credit for admission Chemistry.

3. General Chemistry: Inorganic III (continuation of course 2).—Prerequisite: course 2. Mj. Spring, ASSISTANT PROFESSOR SCHLESINGER AND DR. FINKELSTEIN.

NOTE.—Courses 1, 2, and 3 are consecutive courses. Separate credit is given for each, but students are advised not to take one course only. The aim of these courses is to give a definite idea of the fundamental principles of chemistry and not to overburden the student with a mass of unconnected facts. The conception of chemical equilibrium and the modern theory of solutions are freely used. The lectures will be experimental to a considerable extent. The courses are designed to meet the wants not only of those who wish to go deeper into chemistry, but of all who wish to study the science as part of a liberal education. The lectures and classroom work of 1, 2, and 3 may be taken by graduate students without the laboratory work or laboratory fee.

2S. General Chemistry: Inorganic (first course).—For students who have had preparatory Chemistry. Prerequisite: preparatory Chemistry and preparatory Physics, one unit each. DM. Summer, First Term. Classroom, 6 hours a week; laboratory, 12 hours a week, ASSISTANT PROFESSOR SCHLESINGER. Mj. Autumn. Classroom, 3 hours a week; laboratory, 6 hours a week, PROFESSOR HARKINS AND MR. TURNER.

3S. General Chemistry: Inorganic (continuation of course 2S).—DM. Summer, Second Term, ASSISTANT PROFESSOR SCHLESINGER; Mj. Winter, PROFESSOR HARKINS AND MR. TURNER.

NOTE.—Whenever, in exceptional cases, the preparation of a student in 2 or 2S justifies it, Qualitative Analysis may be substituted for 3 or 3S.

4. Elementary Organic Chemistry.—Prerequisite: course 3 or 3S. Classroom, 3 hours a week; laboratory, 6 hours a week; Mj. Autumn and Spring, DR. GLATTFELD.

¹ Full credit only if taken as one of the first eighteen majors.

II. PRIMARILY FOR THE SENIOR COLLEGES

6. Qualitative Analysis (introductory course).—The lectures deal with the Chemistry of the analytical reactions, and special attention is given to the development and application of the laws of equilibrium and solutions. This course is, in an important sense, one in advanced General Chemistry. Classroom, 2 hours a week; laboratory, 8 or 16 hours a week. Prerequisite: course 3 or 3S. Mj. Summer, Spring, and Winter, DR. TERRY; Autumn, DR. STEWART.

7. Qualitative Analysis (continuation of course 6).—Mj. or DMj. Summer, Spring, and Winter, DR. TERRY; Autumn, DR. STEWART.

NOTE.—Courses 6, 7, and 10 form a continuous course, which may be begun in any quarter. The aim of courses 6, 7, and 10 will be to train the student to do intelligent analytical work, based on a knowledge of the scientific principles of the subject, and to apply and amplify his knowledge of General and Physical Chemistry.

8. Quantitative Analysis (introductory course).—Chiefly laboratory work in gravimetric and volumetric analysis. Laboratory, 8 or 16 hours a week; lecture, 1 hour. Prerequisite: course 7. Medical students will be admitted to the course after having taken course 6. Mj. or DM. Summer, DR. WENDT AND MR. TURNER; Autumn, Winter, and Spring, DR. WENDT AND MR. BUNTING.

8M. Quantitative Analysis.—A special course for premedical and medical students giving the elements of gravimetric and volumetric analysis. Prerequisite: course 6. Summer, either Term, DR. WENDT; Autumn, Winter, and Spring, $\frac{1}{2}$ Mj. DR. WENDT AND MR. BUNTING.

9. Quantitative Analysis (continuation of course 8).—Mj. or DM. Laboratory, 10 or 20 hours a week. Mj. Summer, Autumn, Winter, and Spring, DR. WENDT AND MR. BUNTING.

NOTE.—Courses 8 and 9 form a continuous course which may be begun in any quarter.

III. PRIMARILY FOR THE GRADUATE SCHOOL

10. Advanced Qualitative Analysis (continuation of courses 6 and 7).—Open to Senior College students. Prerequisite: course 7. Mj. or DM. Laboratory, 10 or 20 hours a week. Summer, Winter, and Spring, DR. TERRY; Autumn, DR. STEWART.

11. Advanced Quantitative Analysis (continuation of courses 8 and 9).—Open to Senior College students. Mj. or DM. Laboratory, 10 or 20 hours a week. Spring, DR. WENDT.

12. Elementary Spectrum Analysis (Qualitative).—Emission (flame and electric spark) and absorption spectra of inorganic substances. Chiefly laboratory work. $\frac{1}{2}$ Mj. Winter, ———.

13–19. Special Methods in Quantitative Analysis.—Chiefly laboratory work. Open to Senior College students.

13. Electrolytic Methods	$\frac{1}{2}$ Mj. or Mj.
14. Special Mineral Analysis	Mj.
15. Water Analysis	$\frac{1}{2}$ Mj.
16. Gas Analysis	$\frac{1}{2}$ Mj.
17. Organic Elementary Analysis	$\frac{1}{2}$ Mj.
18. Iron and Steel Analysis	$\frac{1}{2}$ Mj. or Mj.
19. Proximate Food Analysis	$\frac{1}{2}$ Mj. or Mj.

Prerequisite: course 9. Domestic science and medical students will be admitted to courses 15 and 19 after having taken course 8. Summer, DR. WENDT; Autumn, Winter, and Spring, DR. WENDT AND MR. BUNTING.

20. Assaying.—Fire-assay of gold, silver, and lead ores. Prerequisite: course 9. [Not given in 1916–17.]

25. Toxicology.— $\frac{1}{2}$ Mj. Autumn, PROFESSOR HAINES AND ASSISTANT.

26. Poisons and Their Detection.—A conference and laboratory course. M. Spring, Second Term, PROFESSOR HAINES.

30. Organic Chemistry.—Lectures, 2 hours a week; laboratory, 6 hours a week. Prerequisite: Qualitative Analysis. Mj. Autumn, PROFESSOR STIEGLITZ.

31. Organic Chemistry (continuation of course 30).—Lectures, 3 hours a week; laboratory, 4 hours a week. Mj. Winter, PROFESSOR STIEGLITZ.

32. Organic Chemistry (continuation of course 31).—The Aromatic Series. Lectures, 2 hours a week; laboratory work, 4 hours a week. Mj. Spring, PROFESSOR STIEGLITZ.

NOTE.—Courses 30, 31, and 32 form a continuous course, covering the compounds of carbon, including the fatty and the aromatic series. The aim of the course will be to take up thoroughly the simpler compounds, going with great detail into the chemical behavior, the characteristic reactions, and relationships of the different classes of organic compounds, and considering with great care the synthetic methods by which they can be obtained. Richter's, Perkins and Kipping's, or Berntsen's *Organic Chemistry* is used as a reference book, but recent literature will be considered in detail. Students who have had adequate laboratory work in Organic Chemistry are admitted to the lectures without payment of a laboratory fee.

33. General Organic Chemistry.—Fatty and aromatic series. Lectures, 5 hours a week. Prerequisite: course 7. Mj. Summer, DR. GLATTFELD.

34. Elementary Organic Preparations.—Laboratory work, 10 hours a week. This course is arranged to accompany the lectures of course 33. It may be taken without the lectures by students who have had Organic Chemistry. Prerequisite: course 7. M. or Mj. Summer, DR. GLATTFELD.

35. Organic Preparations.—Laboratory work, 10 or 20 hours a week. Prerequisite: courses 7 and 9, Organic Chemistry (may be taken simultaneously with lectures on Organic Chemistry), and a reading knowledge of German. DM. Summer, First Term, PROFESSOR GOMBERG, Second Term, DR. GLATTFELD; Mj. Autumn, Winter, Spring, ASSISTANT PROFESSOR PICCARD.

36. Organic Preparations (continuation of course 35).—DM. Summer, First Term, PROFESSOR GOMBERG, Second Term, DR. GLATTFELD; Mj. Autumn, Winter, and Spring, ASSISTANT PROFESSOR PICCARD.

37. Organic Preparations (continuation of course 36).—DM. Summer, First Term, PROFESSOR GOMBERG, Second Term, DR. GLATTFELD; Mj. Autumn, Winter, and Spring, ASSISTANT PROFESSOR PICCARD.

NOTE.—Students who have taken the laboratory work of courses 30 and 31 or of course 34 will omit course 35 and go on with course 36.

85. The Chemistry of Medicinal Drugs.—A course dealing with the physical and chemical properties of the chief medicinal drugs and their most important remedial preparations. 3 hours per week. $\frac{1}{2}$ Mj. Spring, Tu., Th., F., 4:00, PROFESSOR HAINES.

AT RUSH MEDICAL COLLEGE

51. Toxicology.—An advanced conference and laboratory course dealing with the physical and chemical properties of the more important poisons, their effects and treatment, and their detection. Conferences and laboratory: 60 hours. .8Mj. Hours to be arranged. PROFESSOR HAINES.

52. Clinical Chemistry.—A lecture, conference, and laboratory course dealing with the urine, gastric contents, and other animal fluids, in their relation to disease, and embracing the composition of these fluids, the chemical and microscopical detection of abnormal constituents, and the interpretation of their clinical significance. Lectures, conferences, and laboratory: Tu., 11:00; Th., F., 11:00–12:00. 60 hours. .8Mj. PROFESSOR HAINES. [Not given in 1916–17.]

Course 52 may be counted as a part of the five and one-half required majors in Medicine.

53. Materia Medica, Medical Pharmacy, and Toxicology.—A lecture and conference course dealing with the physical, chemical, and pharmaceutical properties of medicinal agents and their toxicology. Lectures and conferences: Autumn, lectures, Tu., W., F., Sat., 11:00–12:00; Spring, Tu., W., F., Sat., 11:00, 48 hours. .8Mj. PROFESSOR HAINES AND ASSISTANTS.

53A. Materia Medica and Medical Pharmacy.—A laboratory course supplementary to course 53. Autumn, Tu., F., 9:00–11:00; Spring, Tu., F., 9:00–11:00. 48 hours. .4Mj. PROFESSOR HAINES AND ASSISTANTS.

V. DEPARTMENT OF THERAPEUTICS AND PREVENTIVE MEDICINE

OFFICERS OF INSTRUCTION

THEODORE TIEKEN, M.D., *Ingals* Professor* and Head of the Department of Therapeutics.

RALPH WALDO WEBSTER, M.D., PH.D., Assistant Professor of Pharmacological Therapeutics.

HUGO AD OLDENBORG, G.D., Assistant Professor of Kinesitherapy.

ROBERT JAMES GAY, M.D., DANIEL ROBERTS BROWER, M.D., Instructors.

CHARLES OTTO CARLSTROM, G.D., Assistant in Kinesitherapy.

INTRODUCTORY

The course in Hygiene and Sanitation is given to the Senior class and consists of lectures and conferences.

A course in the principles of Therapeutics is given to the Junior class three times a week throughout the Winter Quarter by means of lectures and conferences. One of these hours is devoted chiefly to instruction in prescription-writing from a therapeutic standpoint. The work is continued during the Spring Quarter by means of a conference course with more special reference to individual diseases.

A course in Practical Therapeutics is offered in which the student is personally taught manipulative methods, including Massage, Electricity, Hydrotherapy, etc., and the practical care of the sick.

It is intended that this Department shall supplement the work of the Department of Medicine by dealing more in detail with the technique of treatment.

Any course in Clinical Medicine dealing specifically with Therapeutics, for example, course 23 in the Department of Medicine, may be applied on the required credit in *Materia Medica* and Therapeutics.

COURSES OF INSTRUCTION

I. JUNIOR YEAR

1. Therapeutics.—A lecture and prescription-writing course. Prerequisite: *Materia Medica* III, course 53. Lectures: M., F., 8:00; prescription-writing: W., 8:00. .6Mj. Winter, ASSISTANT PROFESSOR WEBSTER AND DR. CHAPMAN.

2. Therapeutics.—A conference course on the therapeutic management of special diseases, including prescription-writing. Prerequisite: *Materia Medica* III, course 53. .6Mj. Summer and Spring, M., W., F., 8:00, PROFESSOR TIEKEN AND DRs. GAY AND CHAPMAN.

3. Practical Therapeutics.—A laboratory and practical course in massage, hydrotherapy, aerotherapy, electrotherapy, cooking for the sick, and the general management of the sick, with clinical application. Given to the class in sections. Tu., Th., 4:00–6:00. .4Mj. Autumn and Winter, ASSISTANT PROFESSOR OLDENBORG, DR. BROWER, AND ASSISTANTS.

* The *Ingals* Professorship of Therapeutics was founded in 1898 by the late Dr. Ephraim Ingals, by a gift to the college of \$25,000 for the promotion of higher education and the advancement of medical science. Dr. Ingals was professor of *materia medica* and medical jurisprudence in Rush Medical College from 1859 to 1871, and was a member of the Board of Trustees and treasurer of the College for many years.

II. SENIOR YEAR

5. Preventive Medicine, Hygiene, and Sanitation.—A lecture and conference course in public health and sanitation, including a study of municipal water, milk, and food supply, housing, etc. .4Mj. Autumn, Tu., Th., 8:00, DR. GAY.

7. Kinesitherapy.—A practical course in Kinesitherapy, with demonstrations, including massage, Swedish movements, and Frenkel re-educative exercises, the students themselves having an opportunity to practice these forms of treatment on patients sent from the other departments of the dispensary. Hours to be announced. .6Mj. Autumn, Winter, and Spring, ASSISTANT PROFESSOR OLDENBORG AND MR. CARLSTROM.

VI. THE DEPARTMENT OF PATHOLOGY

OFFICERS OF INSTRUCTION

LUDVIG HEKTOEN, M.D., Sc.D., Professor and Head of the Department of Pathology.

HARRY GIDEON WELLS, A.M., Ph.D., M.D., Professor of Pathology.

EDWARD VAIL LAPHAM BROWN, M.D., Assistant Professor in the Pathology of the Eye.

HARRIET FAY HOLMES, A.B., Special Instructor in Pathological Technique.

EDWIN FREDERICK HIRSCH, A.M., Ph.D., M.D., Instructor in Pathology.

GEORGE THOMAS CALDWELL, A.M., Instructor in Pathology.

ALVIN GEORGE FOORD, S.B., Laboratory Assistant in Pathology.

HARRY LEE HUBER, A.M., Research Assistant in Pathology.

LYDIA M. DEWITT, A.M., M.D., Assistant
Professor of Pathology

KARL KONRAD KOESSLER, M.D., Assistant
Professor of Experimental Medicine

MAUD SLYE, A.B.

JULIAN HERMAN LEWIS, M.D., Ph.D.

SIDNEY MARSH CADWELL, S.B.

Members of the Otho S. A. Sprague
Memorial Institute Staff.

FELLOWS, 1917-18

EMANUEL BERNARD FINK, S.B.

CHARLES EDWARD WATTS, S.M.

AT RUSH MEDICAL COLLEGE

LUDVIG HEKTOEN, M.D., Sc.D., Professor and Head of the Department of Pathology.

EDWIN RAYMOND LECOUNT, M.D., Professor of Pathology.

GEORGE HOWITT WEAVER, M.D., Associate Professor of Pathology.

GEORGE FREDERICK DICK, M.D., Assistant Professor of Pathology.

RICHARD FISSON AUSTIN, M.D., Instructor in Pathology; Pathologist, Children's Memorial Hospital.

HOMER KING NICOLL, A.B., M.D., Instructor in Pathology and Serologist, Presbyterian Hospital.

BURRELL OTTO RAULSTON, M.D., Assistant in Pathology; Resident Pathologist, Presbyterian Hospital.

CELESTIN B. SEMERAK, M.D., Research Assistant in Pathology.

PATRICK THOMAS MCCARTHY, S.B., M.D., Fellow in Pathology.

INTRODUCTORY

THE MASTER'S DEGREE

For the Master's degree a dissertation and eight majors of graduate or Senior College work in Pathology are required, if all the work is in Pathology. Substitution of courses in Bacteriology and Immunity may be made with the approval of the Head of the Department, but courses 1, 2, 3, and at least 3 majors of Research must be taken in Pathology.

Students wishing to take a minor in Pathology will meet the same requirements as for the Master's degree, except that a dissertation is not required.

THE DEGREE OF DOCTOR OF PHILOSOPHY

Courses required of all candidates are Pathology 1, 2, and at least 3 majors in course 3; also Bacteriology 2, and a course covering the fundamental principles and methods of Immunology. Courses in Hygiene and Bacteriology may be accepted as equivalent to courses in Pathology to a maximum of 5 majors with the approval of the Head of the Department. A thesis must be presented representing the results of original research under the direction of an officer of the Department, but so conducted as to indicate the ability of the candidate to conduct independent original investigation.

COURSES OF INSTRUCTION

I. SENIOR COLLEGE COURSES

1. General Pathology and Pathological Histology.—A practical laboratory course in general pathologic histology, supplemented by experiment, by the study of fresh and museum specimens, and by recitations in general pathology. Prerequisite: Histology, Bacteriology, Physiology, Physiological Chemistry, and Visceral Anatomy. Laboratory, recitations, and lectures, 9 hours a week. Mj. Autumn, DR. HIRSCH AND MR. CALDWELL; Winter, PROFESSOR WELLS, DR. HIRSCH AND ASSISTANTS.

2. Pathology of Infectious Granulomas and Tumors.—Mj. Spring, PROFESSOR WELLS, DR. HIRSCH, MR. CALDWELL, AND ASSISTANT.

1 and 2 will be given as double-minor courses in the First and Second Terms of the Summer Quarter. Daily 8:00-11:00, DR. HIRSCH, MR. CALDWELL, AND ASSISTANTS.

5. Special Pathology.—Supplementary to and paralleling course 2. A study of the pathological changes affecting different organs and tissues. Limited to 30 students. Mj. Spring, DR. HIRSCH AND MR. CALDWELL.

II. GRADUATE COURSES

3. Advanced Pathology.—Open to a limited number of students who have credit in general pathology. Laboratory work will be given in pathological technique, the study and recording of autopsies, and special pathological material. Laboratory fee, \$5.00. Hours to be arranged for each student. Mj. each quarter, PROFESSOR WELLS.

4. Research in Pathology.—Open to a limited number of qualified students and graduates in medicine. Laboratory fee, \$5.00 per Mj. Hours to be arranged for each student. Mj. or DMj. each quarter, PROFESSORS HEKTOEN AND WELLS.

6. Pathology of the Eye.—Special pathology for practicing physicians and advanced students. Laboratory fee, \$5.00. DM. Summer, Second Term, Tu., W., Th., F., 2:00-4:00, ASSISTANT PROFESSOR BROWN.

8. Pathological Technique.—Open to a limited number of students. Mj. Autumn, MISS HOLMES.

III. JUNIOR AND SENIOR COURSES (WEST SIDE)

12. Special Pathologic Anatomy and Histology.—Limited to thirty students. Practical instruction is given in the methods of making post-mortem examinations and of recording the results. The student studies and describes the gross and microscopic appearance of diseased organs and tissue. Bacteriologic and chemical methods and experiments are employed whenever indicated and the clinical relations (pathologic physiology) of the morbid conditions are emphasized. *Prerequisite:* courses *Pathology 1 and 2*. Daily 2:00–4:00, except Saturday, and autopsies two hours weekly. 144 hours. 1.2Mjs. Summer, Autumn, Winter, and Spring, PROFESSOR LECOUNT AND ASSISTANT PROFESSOR DICK.

13. The Histology and Diagnosis of Tumors.—*Prerequisite:* courses *Pathology 1 and 2*. 8:00–10:00 A.M. 72 hours. Mj. Autumn, PROFESSOR LECOUNT.

14. Infection and Immunity.—A lecture course. Winter, First Term, Tu., Th., 8:00. 12 hours. .2Mj. PROFESSOR HEKTOEN.

17. Advanced Laboratory Work and Research in Pathology.—Open to a limited number of specially qualified students and graduates in medicine. Hours arranged for each student. Credit given based on time and quality of work. Throughout the year. PROFESSORS HEKTOEN AND LECOUNT.

VIA. THE DEPARTMENT OF HYGIENE AND BACTERIOLOGY

OFFICERS OF INSTRUCTION

EDWIN OAKES JORDAN, PH.D., Professor of Bacteriology and Chairman of the Department of Hygiene and Bacteriology.

*NORMAN MACLEOD HARRIS, M.B., Assistant Professor of Bacteriology.

JOHN FOOTE NORTON, PH.D., Assistant Professor of Bacteriology.

PAUL GUSTAV HEINEMANN, PH.D., Instructor in Bacteriology.

WILLIAM ERNEST CARY, PH.D., Instructor in Bacteriology.

ALBERT GORDON BOWER, M.D., Instructor in Bacteriology.

PAUL ROBERTS CANNON, A.B., Assistant in Bacteriology.

JOHN EVERETT GORDON, S.B., Assistant in Bacteriology.

DUDLEY BILLINGS REED, A.B., M.D., Associate Professor of Physical Culture; Health Officer of the University.

WILLIAM THOMAS BELFIELD, M.D., Professor of Surgery, Rush Medical College.

HARRY JOHN CORPER, PH.D., Director of Laboratories of the Municipal Tuberculosis Sanitarium.

WALTER A. GEKLER, M.D., Medical Superintendent, Municipal Tuberculosis Sanitarium.

ALICE HAMILTON, M.D., Investigator of Occupational Diseases, U.S. Bureau of Labor Statistics.

HENRY FREDERICK HELMHOLZ, M.D., Assistant Professor of Medicine, Rush Medical College.

EMERY ROE HAYHURST, M.D., PH.D., Assistant Professor of Industrial Hygiene, Ohio State University (Summer 1917).

FELLOW, 1917–18

HOWARD E. MIDDLETON.

* Absent on leave.

PRINCIPAL SEQUENCE

The principal sequence consists of nine majors from the courses offered by the Department. The sequence must be arranged in consultation with the Head of the Department.

SECONDARY SEQUENCE

To students wishing to take a minor in this Department, six majors from the following courses are recommended: 1, General Bacteriology; 2A, Pathogenic Bacteria; 3, Public Hygiene; 4, Industrial Hygiene; 5, Public Health Problems; 10, Sanitary Aspects of Milk Supply (or 11, Water and Water Supply, or 12, Public Health Laboratory Methods); 15, Advanced Bacteriology (2 or 2½ Mjs.).

For the Master's degree a dissertation and six majors of graduate work in this Department are required. The majors must be selected with the approval of the Head of the Department.

COURSES OF INSTRUCTION

I. JUNIOR COLLEGE COURSES

100. Personal Hygiene.—The elements of normal growth, functions, toleration limits, physical diagnosis, prodromes of disease conditions, and the essentials of personal health maintenance and of corrective therapeutics. For non-medical students. Lectures and demonstrations. ½Mj. Winter, ASSOCIATE PROFESSOR REED; Summer, ASSISTANT PROFESSOR HAYHURST.

II. SENIOR COLLEGE COURSES

1. General Bacteriology.—Lectures on the fundamental facts of bacteriology, including brief discussions of the industrial and hygienic applications of bacteriology. Yeasts and molds and several groups of bacteria are studied in the laboratory. Designed for general scientific students. Prerequisite: Chemistry 1, 2, and 3 (or 2S and 3S) and Zoology 1. Laboratory fee, \$5.00. Mj. Autumn, Spring, and Summer, ASSISTANT PROFESSOR NORTON.

2A. The Pathogenic Bacteria.—To be taken in sequence to 1 (see description of 2B). Medical credit will be given either for 1 and 2A or for 2B. Laboratory fee, \$5.00. Mj. Winter, ASSISTANT PROFESSOR NORTON.

2B. The Pathogenic Bacteria.—Lectures deal with the morphology and biology of bacteria in general and with infection, immunity, and the specific infectious diseases. In the laboratory students make up bacteriologic media, study some of the more important groups of non-pathogenic and pathogenic bacteria, keep daily records of the biologic changes in cultures under observation, examine water, sewage, milk, pus, saliva, etc., conduct post-mortems on infected animals, and isolate and identify bacteria in mixtures. Those who are not students of medicine will be admitted to this course only by permission of the instructor. Laboratory fee, \$7.50. 1½Mjs. Autumn and Summer, DR. BOWER AND DR. CARY.

3. Public Hygiene.—The applications of bacteriology to municipal hygiene, water supply, food supply, etc. Prerequisite: Chemistry 1, 2, and 3 (or 2S and 3S); Zoology 1. ½Mj. Autumn, PROFESSOR JORDAN.

4. Industrial Hygiene.—Course covers dangerous trades, industrial health hazards, occupational diseases, with their control, prevention, and social aspects. For medical students; also sociological students who have had some preparation in the fundamental sciences. Prerequisite: course 3. ½Mj. Summer, ASSISTANT PROFESSOR HAYHURST; Winter, DR. HAMILTON.

5. Public-Health Problems.—Infant welfare, the anti-tuberculosis campaign, venereal diseases. Prerequisite: course 2A or 2B, or 3. ½Mj. Spring, PROFESSOR BELFIELD, ASSISTANT PROFESSOR HELMHOLZ, DR. CORPER, AND DR. GEKLER.

III. GRADUATE COURSES

10. Sanitary Aspects of Milk Supply.—Lectures on physical, chemical, bacteriological, and hygienic properties of milk. The laboratory work includes practical exercises in public-health laboratory examinations for the control of milk supplies. Prerequisite: Chemistry 8 (or 8M.) and course 1 or 2B. Class is limited to 8. Laboratory fee, \$5.00. Mj. Autumn and Summer, DR. HEINEMANN.

11. Water and Water Supply.—Sources of supply and methods of purification. Chemical, bacterial, and microscopical methods. Lectures and laboratory work. Prerequisite: Chemistry 8 (or 8M.); course 1 or 2B. With permission of the instructor this course may be taken by qualified students as a minor in the Second Term. Laboratory fee, \$5.00. Mj. Winter, ASSISTANT PROFESSOR NORTON.

12. Public-Health Laboratory Methods.—Diagnosis of diphtheria, typhoid fever, glanders, and rabies; Wassermann test, etc. Prerequisite: course 2A or 2B. Laboratory fee, \$5.00. Mj. Winter, DR. CARY.

13. Parasitology.—Animal parasites of man (including protozoa). Prerequisite: course 1 or 2A or 2B. Class is limited to 10. Laboratory fee, \$5.00. Mj. [Not given in 1917.]

14. Immunity in Relation to Preventive Medicine.—The use of sera, anti-toxins, and the like in treating disease; also the use of antibodies, such as agglutinins and opsonins, in the diagnosis of diseased conditions. Prerequisite: course 2A or 2B. Mj. Autumn, DR. HEINEMANN.

15. Advanced Bacteriology.—Open to a limited number of specially prepared students and to graduates in medicine. Prerequisite: course 2A or 2B, Chemistry 8 or 8M. Laboratory fee, \$5.00. Mj. Repeated each quarter, PROFESSOR JORDAN AND ASSISTANT PROFESSOR NORTON.

16. Vital Statistics and Epidemiology.—Prerequisite: course 2A or 2B, or 3. $\frac{1}{2}$ Mj. Spring, PROFESSOR JORDAN.

17. School Hygiene.—This course considers the more important problems relating to the individual school child and his environment. It includes discussions of posture, neuro-muscular co-ordinations, physical defects, and some phases of personal hygiene. The heating, lighting, ventilation of schoolhouses, and other facts of the common school life are also taken up. Consideration is given to the questions of school programs, school recreations, communicable diseases, and first aid. A good high-school course in physiology will be accepted for admission to this course. Mj. Spring, ASSOCIATE PROFESSOR REED.

18. Special Bacteriology.—Primarily for students of medicine who wish to become familiar with the isolation and study of certain pathogenic micro-organisms requiring the application of special technical methods. Hours to be arranged. Prerequisite: course 2A or 2B. Laboratory fee, \$5.00. Mj. Winter, DR. BOWER.

20. Research in Bacteriology.—Laboratory fee, \$5.00. Mj. or DMj. each quarter, PROFESSOR JORDAN.

VII. DEPARTMENT OF MEDICINE

OFFICERS OF INSTRUCTION

INTERNAL MEDICINE

FRANK BILLINGS, Sc.D. (Harv.) M.D., Professor and Head of the Department of Medicine.

NORMAN BRIDGE, A.M., M.D., Emeritus Professor of Medicine.

JAMES BRYAN HERRICK, A.M., M.D., Professor of Medicine.

BERTRAM WELTON SIPPY, M.D., Professor of Medicine.

JOSEPH LEGGETT MILLER, M.D.; SAMUEL ROBERT SLAYMAKER, M.D.;
JOSEPH ALMARIN CAPPS, A.M., M.D.; BIRD MCPHERSON LINNELL, M.D.,
Associate Professors of Medicine.

LUDWIG MANHEIMER LOEB, M.D.; JAMES MURRAY WASHBURN, M.D.; MOSES
MILTON PORTIS, M.D.; ALEXANDER FRANCIS STEVENSON, M.D.; ROLLIN
TURNER WOODYATT, M.D.; WILBER E. POST, M.D.; ERNEST EDWARD
IRONS, M.D., Ph.D.; JOHN L. JACQUE, M.D.; JOHN RITTER, M.D.; LEON
BLOCH, M.D.; ELLIS KIRK KERR, M.D.; SIDNEY STRAUSS, M.D.; KARL K.
KOESSLER, M.D.; WALTER WILE HAMBURGER, M.D.; ARCHIBALD HOYNE,
M.D.; RALPH C. BROWN, M.D.; WILLARD WOODARD DICKER, M.D.,
Assistant Professors of Medicine.

RALPH WALDO WEBSTER, M.D., Ph.D.; ARTHUR A. SMALL, M.D.; JAMES
RICHARD GREER, M.D.; JOHN HANCOCK MCCLELLAN, M.D.; DONALD P.
ABBOTT, M.D.; JOHN J. ALDERSON, M.D.; RUSSELL M. WILDER, M.D.;
HARRY E. MOCK, M.D., Instructors in Medicine.

FREDERICK OLAF FREDERICKSON, M.D.; HENRY WILLIAM ABELMAN, M.D.;
HARRY G. HARDT, M.D., Associates in Medicine.

SIGISMUND FRANKLIN WATERMAN, M.D.; CHARLES A. GRIFFITH, M.D.;
HENRY J. ULLMAN, M.D.; ROBERT S. BERGHOFF, M.D.; GEORGE HOWELL
COLEMAN, M.D.; LEE CONNELL GATEWOOD, M.D.; MAX BENJAMIN
LEVITON, M.D.; CLAUDE ALLEN LINK, M.D.; ABRAHAM RIMMERMAN, M.D.;
JOHN D. ELLIS, M.D.; FRANK AMOS CHAPMAN, M.D.; NATHAN S. DAVIS III,
M.D.; CHARLES A. SIMA, M.D.; JOHN FAVILL, M.D.; CLIFFORD PORTER
McCULLOUGH, M.D.; FRED M. SMITH, M.D.; LOWELL DELFORD SNORF,
M.D., Assistants in Medicine.

FREDERICK WILLIAM GAARDE, M.D., *Dane Billings Memorial Fellow in Medicine.*

PEDIATRICS

JOHN MILTON DODSON, A.M., M.D., Professor of Medicine (Pediatrics).

FRANK SPOONER CHURCHILL, M.D., Associate Professor of Medicine (Pediatrics).

SAMUEL AMBERG, M.D., Associate Professor of Experimental Medicine.

SAMUEL JOHNSON WALKER, M.D.; HENRY F. HELMHOLZ, M.D.; FRANK WESLEY
ALLIN, M.D.; CLIFFORD G. GRULEE, A.M., M.D., Assistant Professors of
Medicine (Pediatrics).

GUSTAV LEONARD KAUFFMAN, M.D.; AUGUST STRAUCH, M.D., Instructors in
Medicine (Pediatrics).

WALTER H. O. HOFFMAN, M.D.; WALTER FRITZ WINHOLT, M.D., Associates in
Medicine (Pediatrics).

GEORGE EDWIN BAXTER, M.D.; CHARLES SCHOTT, M.D.; HENRY H. KLEINPELL,
M.D.; LORIN C. COLLINS, M.D.; SIGURD KRAFT, M.D.; CECIL THEODORE
HEIDEL, M.D.; GARAHED A. Z. GARABEDIAN, M.D.; OSCAR ELLIS CHASE,
M.D.; ELMER C. LEININGER, M.D.; VIRGIL D. GREER, M.D.; BENJAMIN
RAPPAPOORT, M.D.; ARTHUR HARLEY PARMELEE, M.D., Assistants in Medi-
cine (Pediatrics).

NERVOUS AND MENTAL DISEASES

THOR ROTHSTEIN, M.D., Professor of Medicine (Nervous and Mental Diseases).

SIDNEY KUH, M.D.; JAMES CORNELIUS GILL, M.D.; GEORGE WASHINGTON
HALL, A.M., M.D.; PETER BASSOE, M.D., Associate Professors of Medicine
(Nervous and Mental Diseases).

JOSEPHINE ESTABROOK YOUNG, M.D., Assistant Professor of Medicine (Nervous and Mental Diseases).

SIGMUND KRUMHOLZ, M.D.; WILLIAM FREDERICK DEY, M.D., Instructors in Medicine (Nervous and Mental Diseases).

MAURICE BRAUDE, M.D., Associate in Medicine (Nervous and Mental Diseases).

EDWIN T. SECOR, M.D.; SAMUEL NYE CLARK, M.D.; ISIDORE LEON MYERS, M.D.; RUTH LEDA FOX, Assistants in Medicine (Nervous and Mental Diseases).

INTRODUCTORY

In this Department instruction is given in the topics usually comprised under the terms Internal Medicine, Pediatrics, and Neurology. The abundant clinical material in the Central Free Dispensary, the Presbyterian, Anna Durand, the Children's Memorial, Cook County, and other hospitals makes it possible to give instruction largely by object-lessons—the actual study of disease in the living patient by students arranged in small groups. In the Junior or first clinical year an effort is made to give the student a survey of the general field, with training in the technique of physical examination, laboratory methods, and in history taking. To this end the student takes work in the following courses: VII-0, Practice of Medicine; VII-1, Principles of Pediatrics; VII-2, Physical Examination; VII-5, Laboratory Diagnosis; and the work in the dispensary, and arena clinics in courses 6, 8, 9, 9A, 10, 11, and 13. In the Senior year opportunity is afforded for more advanced clinical work in the section clinics in the Cook County Hospital, VII-3, 3A, etc., in the ward clinics in the Presbyterian Hospital, VII-6A, and in the several clinical courses in Internal Medicine, Pediatrics, and Neurology and Psychiatry. The courses specifically required of each student are courses VII-0, 1, 2, 5, 6, and 6A, and a total of 5.5 Mjs. Attention is called also to the conference courses, offered in the Senior year, giving a general review of the clinical subjects (see p. 84).

COURSES OF INSTRUCTION

INTERNAL MEDICINE

I. JUNIOR YEAR

0. Practice of Medicine.—A conference and recitation course on the essentials of the practice of medicine, designed to afford a general survey of the more important diseases and conditions in preparation for the clinical courses. Limited to 30 students in each section. 36 hours. M., W., F., 8:00. .6Mj. Autumn and Spring, ASSOCIATE PROFESSOR SLAYMAKER, ASSISTANT PROFESSORS WASHBURN, IRONS, DICKER, AND BROWN.

2. Physical Examination.—A conference and practical course on the methods of physical exploration, chiefly of the normal body. Tu., Th., Sat., 8:00. 36 hours. .3Mj. Autumn and Spring, PROFESSOR TIEKEN, ASSOCIATE PROFESSOR GILL, ASSISTANT PROFESSORS STEVENSON AND DICKER, AND DR. GREER, GAARDE, ULLMAN, COLEMAN, CHAPMAN, DAVIS, AND FAVILL.

5. Laboratory Diagnosis.—A laboratory course in the chemical, microscopic, and bacteriologic examination of blood, urine, sputum, gastric contents, feces, secretions, exudates, etc., and their pathologic and clinical significance, especial attention being given to the acquisition of an accurate technique. Each class limited to 36 students. Autumn and Spring, each Term: sec. a, M., W., Th.; sec. b, Tu., F., Sat., 9:00–11:00. 36 hours. .3Mj. Drs. NICOLL, GAARDE, COLEMAN, AND RAULSTON.

6. A Clinical Course.—In the Central Free Dispensary each quarter. In the departments of Internal Medicine, of Pediatrics, and of Nervous and Mental Diseases, conducted by members of the Department. Prerequisite: Physical and Laboratory Diagnosis. In sections, one quarter for each section. Daily, 9:00–11:00. 144 hours. 1.2Mjs.

SENIOR YEAR

3. Clinic and Conference at the Cook County Hospital.—Topics: Winter: Infectious Diseases; Spring: Diseases of the Heart and Blood Vessels. Limited to 10 students. Th., 9:00–11:00; M., 9:00. 36 hours. .4Mj. ASSOCIATE PROFESSOR SLAYMAKER

3A. Clinic and Conference Course at the Cook County Hospital.—Topics: Autumn: Infectious Diseases; Winter: Respiratory Diseases; Spring: Constitutional Diseases. Limited to 10 students. W., 2:00–4:00; M., 3:00–4:00. 36 hours. .4Mj. ASSOCIATE PROFESSOR MILLER.

3B. Clinic and Conference Course at the Cook County Hospital.—Topics: Autumn: Infectious Diseases; Winter: Respiratory Diseases; Spring: Diseases of the Heart and Blood Vessels. Limited to 10 students. Tu., 2:00–4:00; Th., 3:00–4:00. 36 hours. .4Mj. ASSOCIATE PROFESSOR CAPPS.

3C. Clinic and Conference Course at the Cook County Hospital.—Topics: Spring: Diseases of the Alimentary Tract and Liver. Limited to 10 students. M., 9:00–11:00; Th., 9:00. 36 hours. .4Mj. PROFESSOR TIEKEN.

3E. Clinic and Conference Course at the Cook County Hospital.—Topics: Autumn: Respiratory Diseases; Winter: Diseases of the Alimentary Tract and Liver; Spring: Diseases of the Alimentary Tract and Liver. Limited to 10 students. Tu., 9:00–11:00; F., 9:00. 36 hours. .4Mj. ASSISTANT PROFESSOR PORTIS.

3F. Clinic and Conference Courses at the Cook County Hospital.—Topics: Autumn: Constitutional Diseases; Spring: Diseases of the Heart and Blood Vessels. Limited to 10 students. Tu., 11:00; F., 11:00–1:00. 36 hours. .4Mj. ASSISTANT PROFESSOR LOEB.

3G. Clinic and Conference Course at the Cook County Hospital.—Topics: Winter: Respiratory Diseases; Spring: Infectious Diseases. Limited to 10 students. Tu., 9:00–11:00; F., 9:00. 36 hours. .4Mj. ASSISTANT PROFESSOR IRONS.

3H. Clinic and Conference Course at the Cook County Hospital.—Topics: Summer: Diseases of the Heart and Blood Vessels; Autumn: Diseases of the Alimentary Tract and Liver; Winter: Infectious Diseases and Diseases of the Blood; Spring: Respiratory Diseases. Limited to 10 students. Sat., 9:00; W., 9:00–11:00. 36 hours. .4Mj. ASSISTANT PROFESSOR BLOCH.

3J. Clinic and Conference Course at the Cook County Hospital.—Topics: Winter: Diseases of the Heart and Blood Vessels; Spring: Diseases of the Heart and Blood Vessels. Limited to 10 students. F., 2:00–4:00; Tu., 2:00. 36 hours. .4Mj. ASSISTANT PROFESSOR KERR.

3K. Clinic and Conference Course at the Cook County Hospital.—Topics: Autumn: Nephritis and Allied Conditions; Winter: Diseases of the Heart and Blood Vessels; Spring: Nephritis and Allied Conditions. M., Th., 2:00–4:00. 36 hours. .4Mj. ASSISTANT PROFESSOR POST.

3L. Clinic and Conference Course at the Cook County Hospital.—Autumn: Diseases of the Alimentary Tract and Liver. W., Sat., 11:00–1:00. 36 hours. .4Mj. ASSISTANT PROFESSOR HAMBURGER.

3M. Clinic and Conference Course at the Cook County Hospital.—Topics: Autumn: Diseases of the Alimentary Tract and Liver, with special reference to the use of the X-ray in the diagnosis of these conditions; Spring: Constitutional Diseases. Tu., F., 2:00–4:00. 48 hours. .4Mj. DR. ROGER T. VAUGHAN.

VII-3N.—A clinical ward course in the medical wards of the Cook County Hospital, with special reference to cardio-vascular conditions. The student will

serve as a clinical clerk to the men offering the course and assist in the daily routine of the study and care of the patients assigned to them. Limited to 2 students. Summer, 8:00-1:00. Daily. Total hours, 30 per week. 2Mjs. ASSISTANT PROFESSORS KERR AND LOEB.

VII-3P.—A clinic and conference course at the Cook County Hospital. Topic: The Contagious Diseases. Limited to 10 students. Autumn, Winter, Spring, W., Sat., 11:00-1:00. 48 hours. 4Mj. ASSISTANT PROFESSOR HOYNE.

VII-3R.—A clinical course on the focal infections, with special study of the ophthalmic findings in these conditions. Autumn, Th., 11:00-1:00. 24 hours. 2Mjs. ASSISTANT PROFESSORS IRONS AND BROWN.

3X. Clinic and Conference Course at the Central Free Dispensary.—Topic: Diagnostic Methods. Autumn, Winter, and Spring. M., Th., 9:00-11:00. 48 hours. 4Mj. DR. ———.

***6A.** Clinical Course in the Presbyterian Hospital.—Thirty Senior students will be assigned each quarter to the medical services in the Presbyterian Hospital, and to the service in diseases of children and the Durand Hospital of the Memorial Institute for Contagious Diseases, for a period of one quarter, to serve daily as clinical clerks and laboratory assistants. Each student so assigned will serve in the clinical laboratory of the hospital and in the wards from 8:00-11:00 daily. Approximately 140 hours. 1.6Mjs. DRs. WILDER, ABBOTT, AND OTHERS.

JUNIOR OR SENIOR YEAR

4. Conference Course on the Diseases Less Commonly Seen in the Clinics, including the Contagious Diseases.—Summer and Spring. M., W., F., 8:00. 36 hours. 6Mj. ASSISTANT PROFESSOR STEVENSON.

8. Clinical Medicine.—A clinical and conference course in general medicine, with special reference to Therapeutics. M., Th., 9:00-11:00. 48 hours. 4Mj. Summer, DRs. ABBOTT AND WILDER.

9. Clinical Medicine.—Clinical and conference course in Infectious Diseases and Diseases of the Respiratory Tract, with special reference to Applied Therapeutics. M., Th., 9:00-11:00. 48 hours. Prerequisite: courses Materia Medica 53 and 53A. 4Mj. Autumn, PROFESSOR BILLINGS AND ASSISTANT PROFESSOR IRONS.

9A. Clinical Medicine.—A clinical and conference course in Infectious Diseases and Diseases of the Respiratory Tract, with special reference to Applied Therapeutics. M., Th., 9:00-11:00. 48 hours. 2Mj. Winter, PROFESSOR TIEKEN.

10. Clinical Medicine.—A clinical and conference course in Diseases of the Blood and Ductless Glands. M., Th., 9:00-11:00. 48 hours. 4Mj. Spring, ASSISTANT PROFESSOR WASHBURN.

11. Clinical Medicine.—A clinical and conference course in medicine. Tu., F., 9:00-11:00. Each course 48 hours. 4Mj.

Summer: Infectious Diseases and Immunity. ASSISTANT PROFESSOR IRONS AND DR. GREER.

Autumn: Diseases of the Heart, Kidney, Blood, and Blood Vessels. PROFESSOR HERRICK.

Winter: Diseases of the Heart, Kidney, Blood, and Blood Vessels. PROFESSOR HERRICK.

Spring: The Disorders of Metabolism. ASSISTANT PROFESSOR WOODYATT AND DR. ABBOTT.

11A. A clinical and demonstration course in Diseases of the Heart and Blood Vessels, including Electro-Cardiography. Limited to 8 students. Tu., F., 9:00-11:00. Each course 48 hours. 4Mj. Mj. Summer and Winter, DR. FRED M. SMITH.

* Each student is required to purchase or rent for this course a microscope, and to purchase a hemocytometer and a Talquist scale or some other hemoglobinometer.

13. Clinical Medicine.—A clinical and conference course in medicine. W., Sat., 9:00–11:00. Each course 48 hours. .4Mj.

Summer: Tuberculosis in its various aspects, pulmonary, glandular, abdominal, etc., and covering diagnosis, therapy, hygienic principles, and sociology. ASSISTANT PROFESSORS RITTER AND DICKER AND DR. HARDT.

Autumn: Diseases of the Alimentary Tract and Ductless Glands. PROFESSOR SIPPY.

Winter: Diseases of the Alimentary Tract and Ductless Glands. PROFESSOR SIPPY.

Spring: Diseases of the Alimentary Tract, with Special Reference to Parasitology. ASSISTANT PROFESSOR RALPH BROWN.

23. Therapeutic Clinic.—A medical clinic at the Cook County Hospital, with special reference to Therapeutics. Prerequisite: course III-53. Each quarter, W., 7:00–9:00 P.M. 24 hours. .2Mj. PROFESSOR TIEKEN.

SENIOR YEAR

27. Industrial Medicine and Surgery.—A clinical and conference course dealing with the Human Maintenance Department in the Industries, including preventive medicine, etc. For details see special bulletin. Limited to 10 students. Tu. and F., 7:30–9:30 P.M. 48 hours. .4Mj. DRs. MOCK, ALICE HAMILTON, AND ELLIS.

28. Medical Tuberculosis.—A clinical and conference course in the medical, and especially in the sociologic, measures, for the prophylactic and curative treatment of tuberculosis. Students taking this course will assist the physician in charge of the Rush Medical College station of the Municipal Tuberculosis Sanitarium, and will also visit with him, or the visiting nurse, the homes of the tubercular patients. Limited to 2 students. W., Sat., 9:00–11:00. .4 to .6Mj. ASSISTANT PROFESSOR RITTER AND ASSISTANTS.

29. Diseases of Occupation.—A clinical and conference course in the causation, manifestations, and prophylaxis of diseases due to the mal-hygiene of working conditions in the various trades and callings. Besides the study of dispensary and hospital cases, opportunity for field experience is offered with physician in charge. Limited to 4 students. Each quarter, Tu., F., 9:00–11:00. .4Mj. ASSOCIATE PROFESSOR BASOE, DR. JOHN D. ELLIS, AND DR. ALICE HAMILTON.

33. Variola (extra-mural).—A clinical course in variola, at the Chicago Isolation Hospital, at intervals as material is afforded. Classes limited to 10 each. .2M. ASSOCIATE CLINICAL PROFESSOR HEMAN SPALDING OR ASSISTANT PROFESSOR HOYNE.

36. Clinical Diagnosis Course.—Advanced work in Clinical Diagnosis, etc. Limited to 4 students. W., 9:00–11:00. 24 hours. .3Mj. Each quarter, by arrangement in advance, ASSOCIATE PROFESSOR LINNELL.

38. Clinical Course at the Cook County Hospital.—A course in the clinical investigation of selected topics in the physiology and pathology of the stomach, duodenum, liver, and pancreas; clinical and laboratory study of selected cases from the wards with the aid of the newer methods of examination. Limited to 6 students. W., Sat., 11:00–1:00. 48 hours. .4Mj. Summer, DR. WALTER HAMBURGER.

PEDIATRICS

1. The Principles of Pediatrics.—A conference and practical course comprising the anatomy, physiology, and hygiene of infancy and childhood, the dietetics of infancy and the communicable diseases. Prerequisite to every other course in pediatrics. Tu., F., 8:00. 24 hours. .4Mj. Summer, DR. HOFFMANN; Autumn, DR. WINHOLT; Winter, PROFESSOR DODSON; Spring, ASSISTANT PROFESSOR ALLIN.

1A.—Supplemental to course 1. A conference and demonstration course on the diseases of the new-born, and the peculiar features of disease as manifested in infancy and childhood. Prerequisite, course 1. M., Th., 8:00. 24 hours. .4Mj. Summer and Autumn, DR. HOFFMANN.

6. Dispensary Clinic.—See p. 70; one-fourth of the time allotted to this course is devoted to Pediatrics.

6A. Medical Ward Clinic.—See p. 71; one-third of the time allotted to this course is devoted to Pediatrics and the contagious diseases.

12. Pediatric Clinic.—A clinical course in the Presbyterian Hospital and in Senn Hall. Topics: Autumn: The Diseases of the Newly Born; Winter: The Diseases of the Nervous System in Infancy and Childhood; Spring: The Diseases of the Alimentary Tract. Prerequisite: course 1. Limited to 10 students. Tu., F., 9:00–11:00. 48 hours. 4Mj. PROFESSOR DODSON, ASSISTANT PROFESSOR ALLIN, OR DR. KAUFFMAN.

16. Post-Natal Clinic.—A clinical and follow-up course in the care of normal infants. This course affords an opportunity for the student to become familiar with the infant-welfare movement. Tu., F., 9:00–11:00. 48 hours. 4Mj. Summer, Autumn, and Winter, DR. HOFFMANN; Spring, DR. WINHOLT.

16A. Post-Natal Clinic (extra-mural).—A clinical and conference course in the case of normal infants at some of the infant-welfare stations, affording opportunity for the student to become familiar with the practical side of infant feeding and the care of children. Limited to 6 students. Hours to be arranged. DR. HOFFMANN.

18. Pediatric Clinic.—A clinic and conference course at the Presbyterian Hospital. Topics: Summer: Dietetics and Intestinal Disturbances; Autumn: Diseases of the New-born and the Dietetics of Infancy; Winter: The Diseases of Infancy; Spring: The Commoner Diseases of Infancy, including rickets, scurvy, congenital syphilis, tuberculosis, etc. Prerequisite: course 1. W., Sat., 9:00–11:00. 4Mj. ASSISTANT PROFESSOR GRULEE AND DRS. WINHOLT AND HOFFMANN.

18A. Pediatric Clinic at the Cook County Hospital.—A clinic and conference course at the Cook County Hospital. Limited to 10 students. Each quarter, excepting the Summer, F., 7:00–9:00. 24 hours. 2Mj. DR. STRAUCH.

20. Pediatric Clinic at the Cook County Hospital.—A clinical course in the diseases of children, with especial reference to tuberculosis. Limited to 10 students. M., Th., 4:00–6:00. 4Mj. Autumn, DR. MAY MICHAEL.

FOR PRACTITIONERS

Clinical Courses at the Children's Memorial Hospital.—Courses are offered, for practitioners only, at the Children's Memorial Hospital. Detailed description of these courses will be furnished on application to Rush Medical College.

NERVOUS AND MENTAL DISEASES

3D. Diseases of the Nervous System.—A clinical and conference course at the Cook County Hospital. Limited to 10 students. M., Th., 9:00–11:00. 48 hours. 4Mj. Spring, ASSOCIATE PROFESSOR HALL.

19. Psychology as Related to Psychiatry.—A lecture, demonstration, and conference course in psychology as an introduction to clinical psychiatry. Tu., Th., 8:00–9:00. 24 hours. 4Mj. Spring, ASSOCIATE PROFESSOR KUH.

19A. Pathology of the Nervous System.—A demonstration, clinical, and conference course, including discussion of symptoms depending upon various pathologic changes in the nervous system. Prerequisite: one clinical course in Nervous Diseases. Tu., Th., 8:00. 24 hours. 4Mj. Spring, PROFESSOR ROTHSTEIN.

21. Diseases of the Nervous System.—A clinical course in the amphitheater of Senn Hall and at the Cook County Hospital. M., Th., 9:00–11:00. 48 hours. 4Mj. Summer, ASSOCIATE PROFESSORS GILL AND BASSOE.

21F. Diseases of the Nervous System.—Similar to course 21. 4Mj. Autumn, ASSOCIATE PROFESSORS HALL AND BASSOE.

21W. Diseases of the Nervous System.—Similar to course 21. 4Mj. Winter, PROFESSOR ROTHSTEIN.

21S. Diseases of the Nervous System.—Similar to course 21. 4Mj. Spring, ASSOCIATE PROFESSORS GILL AND HALL.

22. Psychiatry.—A clinical and conference course at the Cook County Hospital. Topic: Insanity. Conference: M., 4:00–6:00; Th., 4:00–5:00. 36 hours. 4Mj. Autumn and Winter, ASSOCIATE PROFESSOR KUH.

VIII. DEPARTMENT OF SURGERY

OFFICERS OF INSTRUCTION

ARTHUR DEAN BEVAN, M.D., *Nicholas Senn* Professor* and Head of the Department of Surgery.

WILLIAM THOMAS BELFIELD, M.D., Professor of Surgery (Genito-urinary).

DEAN DEWITT LEWIS, S.B., M.D., Associate Professor of Surgery.

CARL BRADEN DAVIS, M.D., Assistant Professor of Surgery.

EDWIN WARNER RYERSON, M.D.; CHARLES AUBREY PARKER, M.D., Assistant Professors of Surgery (Orthopedic).

FREDERIC BROWN MOOREHEAD, M.D., D.D.S., Assistant Professor of Surgery (Oral and Dental).

DALLAS BALDWIN PHEMISTER, M.D.; PAUL OLIVER, M.D.; GEORGE GILBERT DAVIS, M.D.; EVARTS AMBROSE GRAHAM, M.D.; VERNON CYRENIUS DAVID, M.D.; EDWARD JAMES LEWIS, M.D.; ROGER T. VAUGHAN, M.D.; BENJAMIN FRANKLIN DAVIS, M.D., Ph.D., Instructors in Surgery.

ISABELLA HERB, M.D., Instructor in Surgery (Anesthetics).

ROBERT HARRY HERBST, M.D.; HERMAN LOUIS KRETSCHMER, M.D., Instructors in Surgery (Genito-urinary).

JOHN ALFRED GRAHAM, M.D.; DAVID C. STRAUSS, M.D.; WALTER H. MEENTS, M.D.; ALBERT H. MONTGOMERY, M.D.; FRANKLIN B. MCCARTHY, M.D.; LOUIS D. SMITH, M.D.; LELAND E. PHIPPS, M.D., Assistants in Surgery.

THOMAS P. LYNAM, M.D.; ROBERT O. RITTER, M.D.; NATHANIEL C. NELSON, M.D.; EMIL J. HOGGLUND, M.D.; HARRISON WILLIS MALTBY, M.D.; JACOB MYERS, M.D., Assistants in Surgery (Orthopedic).

THEODORE DROSDOWITZ, M.D.; ALVIN THOMPSON, M.D.; FREDERIC A. BISDOM, M.D., Assistants in Surgery (Genito-urinary).

FRANCES E. HAINES, M.D., Assistant in Anesthetics.

—, M.D., Lecturer in Radiology.

EDWIN MORTON MILLER, M.D., *Nicholas Senn* Fellow in Surgery.

GATEWOOD, M.D., *A. D. Thompson-Bevan* Fellow in Surgery; House Surgeon, Presbyterian Hospital.

WARREN P. SIGHS, M.D., *Francis A. Hardy* Fellow in Surgery; Assistant House Surgeon, Presbyterian Hospital.

JOHN RICH McDILL, M.D., Lecturer on Surgery (Tropical Diseases).

WALLACE BLANCHARD, M.D., Assistant Clinical Professor of Surgery (Orthopedic), Home for Destitute Crippled Children.

COLEMAN GRAVES BUFORD, M.D., Assistant Clinical Professor of Surgery, Children's Memorial Hospital.

* The *Nicholas Senn* Professorship was founded in 1898 by the late Professor Nicholas Senn, with a gift to the college of \$25,000 for the promotion of higher medical education and the advancement of medical science. He was professor of the principles of surgery in Rush Medical College from 1889 to 1891 and professor of surgery from 1891 to 1908.

INTRODUCTORY

A total of 5½ majors in surgery is required. The following subjects are prerequisite to other courses and to final examination: Surgical Anatomy and Operative Surgery on the Cadaver, .6; Principles of Surgery and Surgical Pathology, 1 Clinic and Conference Courses, including one course on each of the divisions of Regional Surgery: (a) Head, Neck, and Thorax; (b) Abdomen; (c) Extremities, 1.2; Genito-urinary, .4; Orthopedic, .4; Surgical Dispensary, .4; Operative Surgery on Animals, .3; Presbyterian Hospital Ward Work, .4. An optional .8 major, elected as the student desires, and devoted either to laboratory or to clinical work, is recommended.

COURSES OF INSTRUCTION

I. JUNIOR YEAR

1. Principles of Surgery and Surgical Pathology.—A conference and laboratory course. M., W., F., 4:00. 36 hours. .5Mj. Autumn and Spring, ASSISTANT PROFESSOR DAVIS AND DRs. LEWIS, OLIVER, MEENTS, SIGHTS, AND MCCARTHY.

2. Principles of Surgery and Surgical Pathology.—A conference and laboratory course. M., W., F., 4:00. 36 hours. .5Mj. Winter and Summer, ASSISTANT PROFESSOR DAVIS AND DRs. LEWIS, OLIVER, MEENTS, SIGHTS, AND MCCARTHY.

3. Surgical Anatomy and Operative Surgery on the Cadaver.—A demonstration and operative course. Sec. a, M., Th., 11:00-1:00; sec. b, Tu., F., 11:00-1:00. 48 hours. .6Mj. Winter and Spring, ASSISTANT PROFESSOR CARL B. DAVIS AND DRs. GEORGE G. DAVIS, PHEMISTER, BENJAMIN F. DAVIS, AND DAVID.

5. Clinical Surgery (Central Free Dispensary).—Including bandaging, surgical dressings, and surgical appliances. Daily, 11:00-1:00. 48 hours. .4Mj. Each quarter throughout the year. Sec. a, M., Th.; sec. b, Tu., F.; sec. c, W., Sat. Each section limited to 10 students. DRs. GEORGE G. DAVIS, PHEMISTER, DAVID, STRAUSS, B. F. DAVIS, MEENTS, MONTGOMERY, MCCARTHY, GATEWOOD, VAUGHAN, MILLER, AND SIGHTS.

This course may be elected by Junior students after one quarter's residence in the clinical years during which other courses in surgery have been taken.

14. Orthopedic Surgery.—A clinical course at the Home for Crippled Children, 1653 Park Avenue, Summer, Autumn, Winter, and Spring. 48 hours. .4Mj. Sec. a, M., Th., 2:00-4:00, ASSISTANT PROFESSOR RYERSON AND DRs. LYMAN, HOGlund, AND MYERS; sec. b, Tu., F., 2:00-4:00, ASSISTANT PROFESSORS PARKER AND BLANCHARD; sec. c, W., Sat., 2:00-4:00, ASSISTANT PROFESSOR PARKER AND DRs. JACOBS AND MALTBY.

II. JUNIOR AND SENIOR YEARS

6. Clinical Surgery.—A clinical and conference course in general surgery, with special reference to and examination in the surgery of the abdomen. This course includes instruction in the administration of anesthetics. 11:00-1:00, M. and Th., Tu. and F., 48, 60, or 96 hours. .4, .6, or .8Mj. Autumn, PROFESSOR BEVAN, ASSOCIATE PROFESSOR LEWIS, ASSISTANT PROFESSOR DAVIS, AND DRs. G. G. DAVIS, PHEMISTER, DAVID, B. F. DAVIS, AND GATEWOOD.

8. Clinical Surgery.—A clinical and conference course in general surgery, with special reference to and examination in the surgery of the head, neck, and thorax. This course includes instruction in the administration of anesthetics. M. and Th., Tu. and F., 11:00-1:00. 48, 60, or 96 hours. .4, .6, or .8Mj. Winter, PROFESSOR BEVAN, ASSOCIATE PROFESSOR LEWIS, AND ASSISTANT PROFESSOR DAVIS, AND DRs. G. G. DAVIS, PHEMISTER, DAVID, B. F. DAVIS, AND GATEWOOD.

10. Clinical Surgery.—A clinical and conference course in general surgery, with special reference to and examination in surgery of the extremities. This course includes instruction in the administration of anesthetics. M., Tu., Th., and F., 11:00-1:00. 48, 60, or 96 hours. .4, .6, or .8Mj. Spring, PROFESSOR BEVAN, ASSOCIATE PROFESSOR LEWIS, ASSISTANT PROFESSOR DAVIS, AND DR. G. G. DAVIS, PHEMISTER, DAVID, B. F. DAVIS, AND GATEWOOD.

12. Clinical Surgery.—A clinical and conference course in general surgery. This course includes instruction in the administration of anesthetics. M., Tu., Th., and F., 11:00-1:00. 48, 60, or 96 hours. .4, .6, or .8Mj. Summer, PROFESSOR BEVAN, ASSOCIATE PROFESSOR LEWIS, AND ASSISTANT PROFESSOR DAVIS, AND DR. G. G. DAVIS, PHEMISTER, DAVID, B. F. DAVIS, AND GATEWOOD.

Laboratory and research work in surgical pathology may be elected by a limited number of students in the laboratories of Professor Bevan, and credit in proportion to the character and length of course may be granted, but not to exceed in any one quarter .4Mj.

12A. Clinical Course in the Presbyterian Hospital.—Thirty students will be assigned to the clinical services in the hospital. Each quarter. 48 hours. .4Mj. Sec. a, M. and Th.; sec. b, Tu. and F.; sec. c, W. and Sat.

14. Orthopedic Surgery.—A clinical course at the Home for Crippled Children, 1653 Park Avenue, Summer, Autumn, Winter, and Spring. 48 hours. .4Mj. Sec. a, M., Th., 2:00-4:00, ASSISTANT PROFESSOR RYERSON AND DR. LYNAM, HOG Lund, AND MYERS; sec. b, Tu., F., 2:00-4:00, ASSISTANT PROFESSORS PARKER AND BLANCHARD; sec. c, W., Sat., 2:00-4:00, ASSISTANT PROFESSOR PARKER AND DR. JACOBS AND MALTBY.

16. A Practical Course in Operative Surgery on Animals.—Given to the class in sections. Limited to 32 students. Sec. a, Tu., 11:00-1:00; sec. b, Fri., 11:00-1:00. 24 hours. .2Mj. Summer and Autumn Quarters. DR. GEORGE G. DAVIS, PHEMISTER, DAVID, BENJAMIN F. DAVIS, MILLER, AND SIGHTS.

17. Genito-urinary Diseases (Central Free Dispensary).—A clinical and conference course in diseases of the genito-urinary tract. Sec. a, M., Th.; sec. b, Tu., F.; sec. c, W., Sat., 4:00-6:00. 48 hours. .4Mj. Summer, Autumn, Winter, and Spring, PROFESSOR BELFIELD AND DR. HERBST, KRETSCHMER, DROSDOWITZ, THOMPSON, AND BISDOM.

18. Clinical Course at the Cook County Hospital.—Class limited to 10 students. Tu., 11:00-1:00. 24 hours. .2Mj. Each quarter, DR. OLIVER.

20. Clinical Course at the Cook County Hospital.—Class limited to 10 students. F., 11:00-1:00. 24 hours. .2Mj. ASSISTANT PROFESSOR KEYES.

22. Clinical Course at the Cook County Hospital.—Class limited to 20 students. Tu., 7:00-9:00. 24 hours. .2Mj. Autumn, Winter, and Spring, ASSISTANT PROFESSOR KEYES.

24. Clinical Course at the Cook County Hospital.—Class limited to 20 students. W., 7:00-9:00 P.M. 24 hours. .2Mj. Autumn, Winter, and Spring, DR. OLIVER.

25. Orthopedic Clinic at the Cook County Hospital.—Clinical course, with special reference to the orthopedic affections of adults. Mon., 2:00-4:00. 24 hours. .2Mj. Each quarter, ASSISTANT PROFESSOR PARKER.

30. Anesthetics.—A conference and demonstration course on the administration of anesthetics. Sat., 2:00. .1Mj. Autumn and Spring, First Term, DR. HERB.

31. Surgical Physiology.—A conference and demonstration course on the application of physiological principles and methods to surgery. Sat., 2:00. .1Mj. Autumn, Second Term, DR. EVARTS GRAHAM.

32. Tropical Surgery.—A lecture and conference course on the diseases peculiar to the tropics, with special reference to their surgical treatment. Sat., 2:00. .1Mj. Winter, First Term, DR. McDILL.

33. Roentgenology.—A conference and demonstration course on the use of the X-ray in diagnosis and treatment, and on the general principles of radiographic technique. Limited to 15 students. W. and Sat., 2:00. .2Mj. Autumn and Winter, Second Term, Dr. ———.

34. Oral and Dental Surgery.—A conference and clinical course on the surgery of the mouth and teeth. Sat., 2:00. .2Mj. Spring, ASSISTANT PROFESSOR MOOREHEAD.

III. POSTGRADUATE

29. Operative Surgery for Postgraduates.—On dogs, surgery of the abdomen. On the cadaver, surgery of the head, neck, thorax, and extremities. Four weeks, beginning July 1 and August 1. M., W., F., 4:00–6:00. Other days or months by special arrangement. Four or 8 men. Fee, \$50.00. DRS. GEORGE G. DAVIS, PHEMISTER, AND BENJAMIN F. DAVIS.

IX. DEPARTMENT OF OBSTETRICS AND GYNECOLOGY

OFFICERS OF INSTRUCTION

JOHN CLARENCE WEBSTER, M.D., F.R.C.P. (Edin.), Professor and Head of the Department of Obstetrics and Gynecology.

RUDOLPH WIESER HOLMES, M.D., Associate Professor of Obstetrics and Gynecology.

ALBERT BELCHAM KEYES, M.D.; CHARLES EVART PADDOCK, M.D.; CAREY CULBERTSON, M.D.; W. GEORGE LEE, M.D.; NOBLE SPROAT HEANEY, M.D., Assistant Professors of Obstetrics and Gynecology.

FRANZ HEINRICH HARMS, M.D.; MARY M. S. JOHNSTONE, M.D., Instructors in Obstetrics and Gynecology.

CARL HENRY DAVIS, M.D.; WILLIAM FRANCIS HEWITT, S.B., M.D., Associates in Obstetrics and Gynecology.

FREDERICK WILLIAM ROHR, M.D.; CASSIE BELL ROSE, M.D.; PEARL M. SETTLER, M.D., Assistants in Obstetrics and Gynecology.

INTRODUCTORY

The subjects of Obstetrics and Gynecology are taught in the Junior and Senior years in laboratory, recitation, and conference courses, in Dispensary and Hospital clinics, and in the conduct of labor in the homes of patients. The total requirement is 3 majors, at least 2 majors of which must be taken in obstetric courses.

COURSES OF INSTRUCTION

OBSTETRICS

I. JUNIOR YEAR

1. Conference Course.—Anatomy and physiology of pregnancy, bacteriology of genital tract, diagnosis of uterine pregnancy, multiple gestation, hygiene and management of pregnancy, clinical phenomena of normal labor. Tu., Th., 4:00–5:00. .4Mj. Autumn and Spring, ASSOCIATE PROFESSOR HOLMES.

2. Conference Course.—Anatomy and physiology of normal labor, conduct and management of labor, sepsis in obstetrics, anatomy and physiology of puerperium, management of puerperal state, ectopic gestation, toxemia of pregnancy, eclampsia, premature expulsion of ovum, diseases of ovum. Pre-requisite: course 1. Tu., Th., 4:00–5:00. .4Mj. Winter, ASSISTANT PROFESSOR PADDOCK.

3A. Obstetric Operations and Manipulations.—A clinic and conference course in Obstetrics at the Cook County Hospital. Tu., F., 2:00–4:00. 48 hours. .4Mj. Autumn, Winter, and Spring, ASSISTANT PROFESSOR LEE.

4. Obstetric Operations and Manipulations.—A lecture and conference course. Occipito-posterior, face, brow, pelvic, transverse presentations, prolapse of cord, arms, legs, anomalies of the bony pelvis, artificial interruption of pregnancy, version, forceps, symphysiotomy, pubiotomy, embryotomy, Caesarian section. Prerequisite: courses 1 and 2. Tu., Th., 8:00. 24 hours. .4Mj. Spring, ASSISTANT PROFESSOR HEANEY.

II. JUNIOR OR SENIOR YEAR

4A. Operative Obstetrics.—Manipulations on the manikin. Supplemental to course 4. Prerequisite: course 4. Limited to 10 students. 22 hours. .2Mj. Second Term, Spring; each Term of Summer, Autumn, and Winter. Sec. *a*, Tu., F., 11:00–1:00; sec. *b*, W., Sat., 11:00–1:00, ASSISTANT PROFESSOR LEE, DRs. HARMS, DAVIS, HEWITT, OR DR. ROHR.

III. SENIOR YEAR

3. Conference Course.—Pathology of pregnancy (continued), pathology of labor, anomalies of expellant powers and soft passages, placenta praevia, ablatio placentae, hemorrhage during third stage, postpartum hemorrhage, retained placenta, adherent placenta, rupture of uterus, inversion of uterus, pathology of the puerperium. Prerequisite: courses 1 and 2. Tu., Th., 5:00. .4Mj. Autumn, ASSOCIATE PROFESSOR HOLMES OR ASSISTANT PROFESSOR HEANEY.

5. Clinical Obstetrics.—In the maternity department of the Presbyterian Hospital, St. Luke's Hospital, Chicago Lying-in Dispensary, and Central Free Dispensary. Attendance upon cases of confinement in various hospitals and at the homes of patients is required of each student before graduation. Each student will be summoned to cases at the time of delivery and will attend the patients during and after delivery under supervision. Clinical records must be kept by students and certificates obtained. Prerequisite: courses 1, 2, 4, and 4A. .2Mj. Throughout the year. PROFESSOR WEBSTER, ASSISTANT PROFESSORS PADDOCK, CULBERTSON, HEANEY, AND DRs. HARMS, DAVIS, HEWITT, AND ROHR. *Nurses*: EDNA P. BRAUN AND CORA E. PAYNE.

GYNECOLOGY

I. JUNIOR YEAR

7. Conference Course in Gynecology.—Anatomy of the pelvic floor; puberty, menstruation; case taking and physical examination; minor therapeutic measures. M., W., 5:00–6:00. .4Mj. Autumn and Spring, ASSISTANT PROFESSOR KEYES.

II. JUNIOR AND SENIOR YEARS

6. Laboratory and Demonstration Course.—A gross and microscopic study of the female genitalia, both normal and pathologic, including the changes found in menstruation and in pregnancy. Limited to 12 students. Each quarter, W., Sat., 11:00–1:00. 48 hours. .4Mj. ASSISTANT PROFESSOR CULBERTSON, DR. HARMS, OR DR. DAVIS.

8. Dispensary Clinics.—Conferences in practical gynecology. Prerequisite: course 6 or 7. Limited to 5 in each section. 24 hours. .4M. Each Term throughout the year. Sec. *a*, M., Th., 11:00–1:00, DR. ROHR; sec. *b*, Tu., F., 11:00–1:00, DRs. JOHNSTONE, DAVIS, ROSE, AND STETLER; sec. *c*, W., Sat., 11:00–1:00, DRs. HARMS, HEWITT, AND ROSE.

III. SENIOR YEAR

9. College Clinics.—In Gynecology and Obstetrics. Prerequisite: course 6 or 7. 48 hours. .4Mj. Each quarter throughout the year. W., Sat., 11:00–1:00. PROFESSOR WEBSTER AND ASSISTANT PROFESSOR KEYES.

10. Clinical Course at the Cook County Hospital.—A clinical course in Gynecology. Limited to 10 students. Hours to be announced. 24 hours. 2Mj. Autumn, Winter, and Spring, ASSISTANT PROFESSOR CULBERTSON.

11. Special Laboratory Work.—For a limited number of students selected by the Department staff.

X. DEPARTMENT OF LARYNGOLOGY AND OTOTOLOGY

OFFICERS OF INSTRUCTION

EPHRAIM FLETCHER INGALS, A.M., M.D.; JOHN EDWIN RHODES, A.M., M.D.; GEORGE ELMER SHAMBAUGH, Ph.B., M.D., Professors of Laryngology and Otology.

GEORGE ABRAHAM TORRISON, A.B., M.D.; ELMER LAWTON KENYON, A.B., M.D.; STANTON ABELES FRIEDBERG, M.D.; DAVID FISKE, M.D.; THOMAS WILLIAMS LEWIS, S.B., M.D.; GEORGE WILLIAM BOOT, M.D.; ROBERT SONNENSCHNEIN, M.D., Assistant Professors of Laryngology and Otology.

DANIEL BERNARD HAYDEN, M.D.; HENRY H. EVERETT, M.D.; HENRY PATERSON BAGLEY, M.D.; JOHN CHARLES WILLIAMS, M.D.; EDWARD P. NORCROSS, M.D.; EDWIN MCGINNIS, A.B., M.D., Instructors in Laryngology and Otology.

STEPHEN HRYNIEWIECKI, M.D.; SPENCER C. DICKERSON, M.D., Assistants in Laryngology and Otology.

HENRY BOETTCHER, M.D., Instructor (extra-mural) in Laryngology and Otology.

INTRODUCTORY

COURSES

Every physician before beginning the practice of medicine should have a working knowledge of the whole field, and should be equipped to diagnose the more common diseases generally included in the specialties, and to apply judicious early treatment. These courses are, therefore, designed, not for specialists, but to furnish students a knowledge of those special diseases with which they must have to do in general practice.

A total of 1.2Mjs. is required in this Department, but it is recommended that more be taken if time permits. Credit will not be allowed for a course repeated until all of the required work in the Department has been completed. Courses 1 and 2 are prerequisite for the clinical courses. Students will be allowed to register for courses 1 and 2 in the Summer Quarter. Students who have taken course 1 in the Spring Quarter will be allowed to register for courses 2 and 3 in the Summer Quarter.

COURSES FOR PRACTITIONERS

Physicians desirous of gaining a better knowledge of the work in the special fields of Laryngology and Otology may register for any of the courses in the Department. Opportunity is offered for the study of the special anatomy and physiology of these subjects as well as for clinical study. Courses 6, 7, 8, are suited for this purpose.

COURSES OF INSTRUCTION

1. Rhinology, Laryngology, and Otology.—Introductory lecture and conference course. Prerequisite for the clinical courses. Lectures: Tu., Th., 4:00. .4Mj. Spring (for Juniors), ASSISTANT PROFESSORS FISKE AND BOOT; Autumn (for Seniors), ASSISTANT PROFESSOR LEWIS AND DR. HAYDEN. One hour will be devoted to the defects of speech by ASSISTANT PROFESSOR KENYON.

***2. Nose, Throat, and Ear.**—Clinical and practical courses in the Dispensary in the technique of examination in the objective study of the normal and the commoner pathological conditions of the nose, throat, and ear; also intubation of the larynx. Sections limited to 10 students. Prerequisite for the succeeding clinical courses. Each quarter throughout the year. 2:00 to 4:00 each clinic day. 48 hours. .4Mj. Summer, Autumn, Winter, and Spring; sec. *a*, M., Th., ASSISTANT PROFESSOR FISKE AND BOOT AND DRs. EVERETT AND WILLIAMS; sec. *b*, Tu., F., ASSISTANT PROFESSOR TORRISON AND DR. MCGINNIS; sec. *c*, W., Sat., ASSISTANT PROFESSOR LEWIS AND DRs. HAYDEN AND BAGLEY.

***2F. Nose, Throat, and Ear.**—Clinical and practical course at the Cook County Hospital. Similar to course 2. Prerequisite: course 1. Limited to 10 students. M., Th., 2:00–4:00. 48 hours. .4Mj. Autumn, Winter, and Spring, ASSISTANT PROFESSORS FRIEDBERG, BOOT, AND SONNENSCHNEIN.

3A. Clinical Course: Diseases of the Nose and Throat.—Prerequisite: courses 1 and 2. Students who have taken course 1 in the Spring Quarter will be allowed to register for courses 2 and 3 in the Summer. Wed., 2:00–4:00. 24 hours. .2Mj. Summer, ASSISTANT PROFESSOR LEWIS; Autumn and Winter, ASSISTANT PROFESSOR FRIEDBERG; Spring, ASSISTANT PROFESSOR TORRISON. One clinic period each quarter will be devoted to bronchoscopy and esophagoscopy by ASSISTANT PROFESSOR FRIEDBERG and one period to defects of speech by ASSISTANT PROFESSOR KENYON.

3B. Clinical Course: Diseases of the Ear.—Prerequisite: courses 1 and 2. Students who have taken course 1 in the Spring Quarter will be allowed to register for courses 2 and 3 in the Summer. M., Th., 2:00–3:00. 24 hours. .2Mj. Summer, Autumn, Winter, and Spring, PROFESSOR SHAMBAUGH AND ASSISTANT PROFESSOR BOOT.

4. Clinical Course (extra-mural).—Diseases of the Ear: Illinois Charitable Eye and Ear Infirmary. A clinical course, limited to 10 students. Prerequisite: courses 1 and 2. Autumn and Spring. F., 2:00–4:00. 24 hours. .2Mj. DR. HENRY F. BOETTCHER.

6. Student Assistants in the Dispensary.—One student for each section, from either the Junior or Senior class, may register each quarter for work as an assistant in the Dispensary. Sec. *a*, M., Th.; sec. *b*, Tu., F.; sec. *c*, W., Sat., 2:00–4:00. 48 hours. .4Mj.

7. Surgical Anatomy of the Ear.—A course for advanced students and practitioners. Class limited to 6 students. 12 hours. .2Mj. Autumn, W., 3:00–4:00, DR. HAYDEN; Winter, Tu., 3:00–4:00, ASSISTANT PROFESSOR BOOT.

8. Surgical Anatomy, Physiology, and Pathology of the Nose and Throat.—A course for advanced students and practitioners. Class limited to 6 students. M., 4:00–5:00. 12 hours. .2Mj. Summer and Winter, ASSISTANT PROFESSOR SONNENSCHNEIN.

10. Defects of Speech.—A lecture and clinical course offered to graduate students and to Seniors who have completed 1.2Mjs. of work in the Department. From the standpoint of the anatomy and physiology of speech production the important disorders of speech are considered, including defects of articulation, stammering, the aphonias, organic and functional, the difficulties of public speakers and singers, etc. 8 to 12 hours. .1Mj. Summer, ASSISTANT PROFESSOR KENYON.

* Each student is required to provide himself with a head mirror.

XI. DEPARTMENT OF OPHTHALMOLOGY

OFFICERS OF INSTRUCTION

WILLIAM HAMLIN WILDER, M.D., Professor and Head of the Department of Ophthalmology.

EDWARD VAIL LAPHAM BROWN, M.D.; JOHN BERNARD ELLIS, M.D.; FRANCIS LANE, M.D., Assistant Professors of Ophthalmology.

CHARLES GILCHRIST DARLING, M.D.; WILLIAM GEORGE REEDER, M.D., Instructors in Ophthalmology.

ALBERT MARVIN HALL, M.D.; EMORY HILL, M.D., Associates in Ophthalmology.

EARLE B. FOWLER, M.D.; THOMAS DYER ALLEN, M.D.; DANIEL W. EISS, M.D., Assistants in Ophthalmology.

INTRODUCTORY

UNDERGRADUATE COURSES

A total of .8 major in Ophthalmology is required for graduation.

Every well-educated physician should have a general knowledge of ophthalmology.

The work in this Department is arranged so that the student first gets a general survey of the subject through lecture and recitation courses.

In the same quarter, or the following one, through the courses in "practical ophthalmology" he is taught the methods of examination of the eye by various tests, the necessary manipulations for treatment, and the use of the ophthalmoscope by practical exercises on schematic and living eyes. For this work each student must provide himself with an ophthalmoscope.

All this is *preliminary* and *prerequisite* to the clinical courses, in which the student is given the privilege of examining the cases, of studying the progress of the diseases and the effect of the treatment from day to day, and also of witnessing the technic of the operations on the eye. These clinics are on the conference plan, and each exhibition of cases is followed by a discussion on the etiology, pathology, symptomatology, and treatment of the diseases under observation.

Practical courses in refraction are offered for undergraduates and also for practitioners of medicine, in which the methods of fitting glasses are taught.

Special courses for small classes on the normal and morbid anatomy, histology, and bacteriology of the eye are made particularly instructive by the exhibition of anatomical preparations and microscopic slides.

GRADUATE COURSES

Courses will be arranged for physicians who desire to prepare themselves for the practice of ophthalmology, comprising instruction in the anatomy, physiology, bacteriology, and pathology of the eye, in ophthalmoscopy and refraction, and opportunities for clinical work as assistants in the Central Free Dispensary and elsewhere. Preparation for such special practice should be undertaken only by physicians who have had considerable experience in general practice, and should extend over at least six quarters. These need not, however, be taken consecutively but may be attended one, two, or more quarters at a time, at the convenience of the practitioner.

COURSES OF INSTRUCTION

1. Diseases of the Eye.—A lecture and recitation course. 24 hours. .4Mj. Summer (Seniors), Tu., F., 4:00, DR. REEDER; Autumn (Seniors), Tu., F., 4:00, DR. DARLING; Winter (Seniors), M., Th., 5:00, ASSISTANT PROFESSOR ELLIS; Spring (Juniors), M., W., 5:00, ASSISTANT PROFESSOR BROWN.

2. Practical Ophthalmology in the Central Free Dispensary.—Limited to 10 students in each section. Each Term of every quarter, 2:00–3:00. 12 hours. .2Mj. Autumn and Winter, DR. ELLIS; sec. b, Tu., F., Summer and Winter, DR. REEDER; Autumn and Spring, DR. DARLING; sec. c, W., Sat., each quarter, except Summer, DR. HILL.

Courses 1 and 2 may be taken in the same quarter, but both are prerequisite to all clinical courses.

3. Clinical, Conference, and Lecture Course.—Prerequisite: courses 1 and 2. Limited to 20 students. Each quarter, M., Th., 3:00–4:00. 24 hours. .2Mj. Summer, ASSISTANT PROFESSOR ELLIS; Autumn, Winter, and Spring, PROFESSOR WILDER.

4. Clinical Course on the Eye at the Illinois Charitable Eye and Ear Infirmary.—Prerequisite: courses 1 and 2. Limited to 10 students each. Each quarter except Summer. F., 4:00–6:00. 24 hours. .2Mj. ASSISTANT PROFESSOR LANE.

5. Clinical Courses at the Cook County Hospital.—In these courses special attention is given to the relation of the eye to general disease. Prerequisite: courses 1 and 2. Limited to 8 students. Th., 11:00–1:00. 24 hours. .2Mj. Autumn, ASSISTANT PROFESSOR BROWN; Winter and Spring, Wed., 2:00–4:00, DR. DARLING.

6. Normal and Pathological Anatomy and Bacteriology of the Eye.—A course for advanced students and practitioners. Limited to 5 students. One Term. Sat., 3:00–5:00. 24 hours. .2Mj. Summer, University of Chicago, ASSISTANT PROFESSOR BROWN (see Pathology 6); Autumn, 3 days each week Eye and Ear Infirmary, ASSISTANT PROFESSOR LANE.

6A. Special Work for Student Assistants in the Dispensary.—Junior or Senior students who have had courses 1 and 2 may register as follows:

Monday, Thursday	Two students	2:00–4:00
Tuesday, Friday	Two students	2:00–4:00
Wednesday, Saturday	Two students	2:00–4:00
Each quarter. .2Mj.		

Similar opportunity is afforded at the Cook County Hospital Out-patient Clinic from 10:00–12:00 by arrangement with ASSISTANT PROFESSOR BROWN.

7. Refraction.—A practical course (optional) for undergraduates. Limited to 10 students. One Term of Autumn, Winter, and Spring Quarters. Two days a week; hours to be arranged. 12 hours. .1Mj. DR. DARLING OR DR. HILL.

8. Refraction.—A special course for practitioners. Limited to 6 students. Tuition, \$25.00. Summer and Spring. Hours to be arranged.

XII. DEPARTMENT OF SKIN AND VENEREAL DISEASES

OFFICERS OF INSTRUCTION

OLIVER SAMUEL ORMSBY, M.D., Professor and Head of the Department of Skin and Venereal Diseases.

ERNEST LEWIS McEWEN, S.M., M.D., Assistant Professor of Skin and Venereal Diseases.

WILLIAM AUGUSTUS QUINN, M.D., Instructor in Skin and Venereal Diseases.

ERNEST WILLIAM POTTHOFF, M.D.; ARTHUR NORTON MACKEY, M.D.; BENJAMIN BARKER BEESON, M.D.; EDWARD ALLEN OLIVER, M.D., Associates in Skin and Venereal Diseases.

JOHN FRANK WAUGH, Assistant in Skin and Venereal Diseases.

BERTHA MESERVE SHAFFER, M.D., Assistant and Serologist in Skin and Venereal Diseases.

JAMES HERBERT MITCHELL, M.D., Research Fellow in Dermatology (*James Nevins Hyde* Memorial Fund), Assistant in Cutaneous Pathology.

IDELLE KIDDER, Social Service Worker in the Department of Skin and Venereal Diseases.

INTRODUCTORY

The work of this Department is elective and offered to members of the Senior class. Instruction is given by clinical teaching in the College Amphitheater, the Dispensary, and the Cook County Hospital by recitations and by demonstrations to small classes of clinical, bacteriologic, and pathologic phenomena.

Instruction in this Department is supplemented by ample use of the large collection of dermatological plates, atlases, and photographs arranged in cases in proximity to the upper amphitheater; also by use of the Baretta Models procured in Paris for use of this Department.

It is suggested that students begin work in this Department by taking course 1 (open to Juniors in the Spring Quarter), and every student is expected to follow this with course 2. The textbook used is Ormsby, *Diseases of the Skin*.

COURSES OF INSTRUCTION

1. Skin, Genito-urinary, and Venereal Diseases.—A recitation and conference course given to the class in sections not exceeding 25. Tu., F., 4:00–5:00. 24 hours. .4Mj. Summer, DR. MITCHELL; Autumn, DR. QUINN; Winter, DR. MACKEY; Spring, DR. OLIVER.

2. Clinical Course.—A clinical course on the subject of Skin, Genito-urinary, and Venereal Diseases. The clinic has been conducted in the College for many years and is attended by a large number of out-patients of both sexes and all ages. Each quarter throughout the year. Tu., F., 2:00–4:00. 48 hours. .4Mj. Autumn and Spring, PROFESSOR ORMSBY; Summer and Winter, ASSISTANT PROFESSOR McEWEN.

3. Clinical Course in the Central Free Dispensary.—A clinical course given to the class in small sections in the dermatological and genito-urinary departments of the Central Free Dispensary. The student is here brought in personal contact with patients and required to examine and prescribe for them as in private practice. Limited to 10 students in each section. Each term throughout the year, daily, 2:00–4:00. 24 hours. .2Mj. Sec. a, M., Th., Drs. QUINN AND BEESON; sec. c, W., Sat., ASSISTANT PROFESSOR McEWEN AND DR. POTTHOFF.

4. Student Assistant in the Dispensary.—Provision is made for three students to assist in the Dispensary each quarter, one M. and Th., one Tu. and F., and one W. and Sat. 48 hours. .4Mj.

5. Syphilis.—A clinical and lecture course at the Cook County Hospital comprising a general survey of the subject of syphilis. Hours to be announced. 12 hours. .2Mj. Autumn, Winter, and Spring, ASSISTANT PROFESSOR McEWEN.

6. Histopathology and Bacteriology of the Skin.—A demonstration course including instruction and practical work in methods peculiar to the study of cutaneous pathology and bacteriology. Open to practitioners and limited to 8 students. Hours to be arranged. 24 hours. .4M. Summer, Autumn, and Spring, DR. BEESON.

XIII. GENERAL LECTURES AND OPTIONAL COURSES

1. **Medical Jurisprudence.**—A lecture course supplemented by recitations and conferences. Hours to be announced. .3Mj. Winter.

2. **The History of Medicine** (optional).—A lecture course by PROFESSOR DODSON. Hours to be announced. .1Mj. Winter.

3. **Examinations for Life Insurance** (optional).—A lecture and conference course on the nature and purpose of life insurance, the duties and essential qualifications of the examiner for life insurance, etc. 12 hours. Hours to be announced. .2Mj. Winter, PROFESSOR DODSON, ASSOCIATE PROFESSOR LINNELL, AND ASSISTANT PROFESSOR STEVENSON.

4. **Medical Economics** (optional).—A lecture course in medical economics and ethics. 6 hours. Hours to be announced. .1Mj. Winter.

5. **General Review of the Clinical Branches.**—A conference and recitation course affording Senior students an opportunity to review the clinical branches and to co-ordinate their knowledge in preparation for examinations for license or for hospital internships and for practice of medicine. In sections limited to 30 students each. 8 hours per week for each section. Summer, M., Th., F., sec. a, 2:00–4:00; sec. b, 4:00–6:00; sec. c, 7:00–9:00 P.M. 1Mj.

6.—A continuation of course XIII-5. Autumn. .1Mj.

7.—A continuation of course XIII-6. Winter. First Term. .5Mj.

8. **Military Medicine.**—A course in medicine, hygiene, sanitation, administration, and surgery as related to the medical departments of the army, navy, and marine corps. Hours to be announced.

LABORATORIES, EQUIPMENT, AND LIBRARIES AT THE
UNIVERSITY OF CHICAGO

THE HULL BIOLOGICAL LABORATORIES

On December 14, 1895, Miss Helen Culver, of the city of Chicago, presented to the University of Chicago property valued at \$1,000,000—the whole gift, according to the terms of the letter of endowment, to be devoted to the increase and spread of knowledge within the field of the biological sciences. From this fund there have been erected, at the north end of the University grounds, four buildings to serve as laboratories for the Anatomical, Botanical, Physiological, and Zoölogical Sciences. Medical instruction is given in the Anatomical, Physiological, and Zoölogical Laboratories.

THE ANATOMICAL LABORATORY

The Anatomical Laboratory is 120 by 50 feet and four stories high, exclusive of basement and attic. It was constructed to provide for instruction and research in Anatomy, including Neurology, Gross Anatomy, and Microscopic Anatomy. The first floor is occupied by two large laboratories for microscopic work in Histology and Neurology, a laboratory for research and instruction in Immunology, a photographic room, and two small research laboratories for members of the staff. The second floor contains the research laboratories in Neurology, three laboratories for microscopic work, a chartroom, and a lecture-room. The third floor contains a large laboratory for human dissection, two laboratories for advanced work in microscopic anatomy, and four rooms for members of the

staff. The fourth floor contains a second large dissection laboratory, two small laboratories for the same purpose, a museum of anatomical preparations and models, and several small rooms for the staff. The laboratories are well equipped for teaching and research in all branches of anatomy and in immunology.

THE PHYSIOLOGICAL LABORATORY

The Physiological Laboratory is 102 by 52 feet and four stories high, exclusive of the basement and attic. The basement contains a dark-room, two laboratories for advanced courses in physiology, combustion and centrifugal room, two storerooms, and the mechanic's shop. It is connected with the greenhouse, which has been converted into an aquarium and animal room. The first floor contains general laboratories for college and medical courses in physiology, a lecture-room, a storeroom, and a small research laboratory. The second floor contains a large lecture-room, and optical room, and four research laboratories. The third floor contains two large laboratories and one small laboratory for research in Physiology, one large laboratory and two small ones for research in Physiological Chemistry and Pharmacology, and a balance-room. The fourth floor contains two rooms with animal cages and two operating rooms, a storeroom, a large laboratory for work in Physiological Chemistry, and a laboratory for work in Physiology and Pharmacology. The attic contains animal rooms. Additional animal quarters are provided in a building on Fifty-seventh Street and Ingleside Avenue. The laboratories are well equipped both for general instruction in Physiology, Physiological Chemistry, and Pharmacology, and for advanced and research work in these sciences.

THE ZOÖLOGICAL LABORATORY

The Zoölogical Laboratory is 120 by 50 feet and four stories high, exclusive of the basement. On the first floor are located the library of the biological departments, a synoptical museum, a large laboratory for elementary Zoölogy, and a laboratory for research work in Pathology. The second floor contains one large laboratory for beginners in research and a number of smaller laboratories for more advanced work. The third floor contains three large laboratories for comparative Anatomy and Embryology and a number of rooms for research. The fourth floor is devoted to the laboratories of Bacteriology, which are supplied with sterilizers, incubators, special microscopes, and other bacteriological apparatus, and are furnished with tables for microscopical work and for the usual laboratory manipulations. The basement contains one large room with glass-covered extension on the south side, designed for an aquarium; two rooms for use as aviaries, vivaria, etc.; one room for paleontological material, and one for taxidermy and museum purposes. The best optical and other apparatus demanded by zoölogical work is provided. There are series of models and charts illustrating embryological and morphological subjects and ample facilities for keeping land and aquatic animals under favorable conditions for study.

THE HOWARD TAYLOR RICKETTS LABORATORY

The Ricketts Laboratory was built with funds provided from the general income of the University and was opened January 1, 1915, to provide temporary quarters for the Department of Pathology and the Department of Hygiene and

Bacteriology. It is a one-story brick building, measuring 180 by 180 feet, located on the west side of Ellis Avenue between Fifty-seventh and Fifty-eighth streets. The south half is occupied by the Department of Pathology, the north half by Hygiene and Bacteriology. A central wing provides a lecture-room, and two lateral wings contain animal houses, one for each department. A fireproof building in the court provides for the Museum of Pathology. In addition to general laboratories, research-rooms, preparation rooms, and offices, each department has an equipped chemical laboratory, and there is one room equipped for experimental surgical work.

THE KENT CHEMICAL LABORATORY

The Chemical Laboratory was provided by the generosity of Mr. Sidney A. Kent, is 176 by 64 feet, and is three stories high, exclusive of the basement. An amphitheater seating 750 people forms an annex to the building. Lectures are given in rooms on the first floor. The laboratory instruction in General Inorganic and Elementary Organic Chemistry is given on the third floor in three large laboratories accommodating 300 students. Each student is given a separate desk supplied with gas and water and is furnished with all the necessary chemicals and apparatus. The laboratories for Analytical Chemistry are on the second and third floors. The advanced work in Chemistry is done in general and private laboratories on the first and second floors. There are a number of small rooms used as balance, combustion, gas-analysis, photographic rooms, etc. The Chemical Library contains full sets of the most important journals, books of reference, and other works relating to Chemistry.

THE LIBRARIES

The General Library, containing about 485,847 volumes, is for the use of students in all departments of the University. Students who have matriculated and paid their library fee may take at one time three volumes from the General Library. These may be kept two weeks, and at the end of that time, if desired, may be renewed for two weeks. Former students may continue the use of the Library by the payment of the library fee of \$2.50 per quarter.

The total number of books at present in the Library is approximately 458,616 accessioned. Number of volumes in Departmental Libraries of departments concerned in medical instruction, March 1, 1917: Biology, including Anatomy, Neurology, Physiology, Bacteriology, Pathology, Zoölogy, Physiological Chemistry, and Pharmacology, 25,927; Chemistry, 3,758; Physics, 4,039.

In addition thereto are many thousand volumes not yet catalogued.

All the branch and departmental libraries are catalogued and classified.

The General Library is open on every week-day from 8:00 A.M. to 10:00 P.M. The Library receives 2,532 current periodical publications, including the transactions and proceedings of learned societies. The Departmental Libraries are closed at 10:00 P.M.

The students of the University are permitted to use the books and periodicals in the Newberry Library and in the Crerar Library, both of which contain a large number of medical and general scientific works.

The Public Library of Chicago is also available to medical students for general reading.

BUILDINGS, EQUIPMENT, AND HOSPITAL FACILITIES AT RUSH MEDICAL COLLEGE

THE CLINICAL BUILDING, located at West Harrison and Wood streets, is 60 by 80 feet and four stories in height. The first floor is occupied by the college library and reading-room. On the second floor are situated the offices of the College, the lower amphitheater, seating 400, and clinical waiting-rooms. The third floor contains the upper amphitheater, seating 530 persons, a large surgical examining and dressing room, five clinical examining rooms, and a waiting-room for patients. The fourth floor is occupied in part by the upper amphitheater and in part by the laboratory for surgical and orthopedic appliances and bandaging.

THE LIBRARY AND READING-ROOM occupies the first floor of the Clinical Building, a most convenient location for students. The library contains 21,420 volumes, 4,586 pamphlets, 13,482 reprints, and files of all the leading medical journals in English, German, and French. During the last college year the library had a daily average attendance of 168 students.

SENN HALL, erected through the munificence of the late Professor Senn and other members of the Faculty, adjoins the Clinical Building on the east. It covers a ground space of 40 by 90 feet, is seven stories in height (including the basement), and of absolutely fireproof construction. The basement and first three floors, affording over 10,000 square feet of floor space, are devoted to the dispensary and the clinical teaching connected therewith. The fourth and fifth floors are occupied by clinical laboratories and recitation rooms. The remaining two stories contain two surgical and medical amphitheaters, seating about 150 each, with necessary waiting and preparation rooms.

THE LABORATORY BUILDING, on the south side of Harrison Street, is 100 by 45 feet in area and six stories in height (including the basement). The basement is occupied by storage-rooms for apparatus, an animal room for the laboratory of Pathology and Bacteriology, and a cloakroom for students. Adjoining the basement is a separate building for the preparation and storage of cadavers by the cold-storage process, with a capacity for about two hundred bodies. The first and second stories are devoted to the Department of Pathology and Bacteriology, which is fully equipped with the necessary microscopes and other apparatus for advanced work in these branches. The third floor is occupied by the Department of Chemistry and Toxicology and is supplied with all the necessary apparatus and materials for advanced work in these branches in their relation to practical medicine. The fourth floor contains four recitation rooms and a laboratory for Pharmacy and Therapeutics. The fifth floor is devoted to advanced work in practical Gross Anatomy and to Operative Surgery.

THE PRESBYTERIAN HOSPITAL, with accommodations for about 420 patients, adjoins the College and is connected with it, so that patients may be transferred directly from the wards to the clinical amphitheaters. In this hospital over 5,000 patients are treated annually, and it thus affords a large amount of valuable material for the clinics.

ATTENDING STAFF OF THE PRESBYTERIAN HOSPITAL

MEDICINE

Attending Physicians: DRS. FRANK BILLINGS, JAMES B. HERRICK, BERTRAM W. SIPPY. *Associate Attending Physicians:* JAMES MURRAY WASHBURN, ROLLIN T. WOODYATT, ERNEST E. IRONS, RALPH C. BROWN, ASHER F. SIPPY. *Assistant Attending Physicians:* THEODORE TIEKEN, B. M. LINNELL, WILBER E. POST, SIDNEY STRAUSS, KARL K. KOESSLER, ALEXANDER F. STEVENSON, JAMES R. GREER, JOHN H. MCCLELLAN, CLIFFORD P. MCCULLOUGH.

Resident Physicians: DRS. RUSSELL M. WILDER, DONALD P. ABBOTT.

DISEASES OF CHILDREN

Attending Physicians: DRS. JOHN M. DODSON, CLIFFORD G. GRULEE. *Assistant Attending Physicians:* DRS. FRANK W. ALLIN, WALTER H. O. HOFFMANN, WALTER F. WINHOLT.

PSYCHIATRY AND NEUROLOGY

Attending Physicians: DRS. THOR ROTHSTEIN, PETER BASSOE. *Assistant Attending Physician:* DR. GEORGE W. HALL.

SURGERY

Consulting Surgeons: DR. DAVID W. GRAHAM, WILLIAM T. BELFIELD.

Attending Surgeons: DRS. ARTHUR DEAN BEVAN, DEAN D. LEWIS. *Associate Attending Surgeons:* DRS. CARL B. DAVIS, D. B. PHEMISTER. *Assistant Attending Surgeons:* DRS. CHARLES A. PARKER (Orthopedic Surgery), F. B. MOOREHEAD, GEORGE G. DAVIS, V. C. DAVID, BENJAMIN F. DAVIS, ERNEST M. MILLER, ALBERT H. MONTGOMERY. *Attending Urologists:* DR. H. L. KRETSCHEMER, DR. FREDERICK B. MOOREHEAD (Oral and Dental Surgery). *Anesthetist:* DR. ISABELLA HERB.

Resident Surgeon: GATEWOOD, M.D. *Assistant Resident Surgeon:* DR. WARREN P. SIGHTS.

OBSTETRICS AND GYNECOLOGY

Attending Obstetricians and Gynecologists: DRS. JOHN CLARENCE WEBSTER, A. BELCHAM KEYES. *Assistant Attending Obstetricians and Gynecologists:* DRS. CAREY CULBERTSON, NOBLE S. HEANEY, CARL H. DAVIS.

Out-patient Department: DRS. FRANZ H. HARMS, WILLIAM F. HEWITT.

LARYNGOLOGY AND OTOLGY

Consulting Laryngologist: E. FLETCHER INGALS. *Attending Laryngologist:* STANTON A. FRIEDBERG. *Assistant Attending Laryngologist:* DR. EDWIN A. MCGINNIS.

Attending Aurist: DR. GEORGE E. SHAMBAUGH. *Assistant Attending Aurists:* DRS. GEORGE W. BOOT, DANIEL B. HAYDEN.

OPHTHALMOLOGY

Attending Ophthalmologist: DR. WILLIAM H. WILDER. *Assistant Attending Ophthalmologists:* DRS. E. V. L. BROWN, JOHN B. ELLIS, FRANCIS LANE, CHARLES G. DARLING.

DERMATOLOGY

Attending Dermatologist: DR. OLIVER S. ORMSBY. *Assistant Attending Dermatologists:* DRs. ERNEST L. McEWEN, J. FRANK WAUGH, JAMES HERBERT MITCHELL.

PATHOLOGY

Attending Pathologists: DRs. LUDVIG HEKTOEN, EDWIN R. LeCOUNT.
Resident Pathologist: DR. BURRELL O. RAULSTON.
Serologist: DR. HOMER K. NICOLL.

CHEMISTRY

Attending Chemist: DR. WALTER S. HAINES.

X-RAY DEPARTMENT

Attending Roentgenologist: DR. JOSEPH W. ROWNTREE.

THE CHILDREN'S MEMORIAL HOSPITAL, with six buildings and about 170 exclusively free beds, provides an exceptionally valuable clinical material for the study of the medical and surgical affections of infancy and childhood. Under the contract entered into between the trustees of this hospital and Rush Medical College this material is made available to the Faculty and students of Rush Medical College for instruction and research.

STAFF OF THE CHILDREN'S MEMORIAL HOSPITAL

Consulting Staff: DRs. WALTER S. HAINES, ARTHUR D. BEVAN, E. FLETCHER INGALS, JOHN M. DODSON, LUDVIG HEKTOEN, FRANK BILLINGS, J. CLARENCE WEBSTER, WILLIAM H. WILDER, OLIVER S. ORMSBY, GEORGE F. SHAMBAUGH, M. L. HARRIS.

Attending Physicians: DRs. FRANK S. CHURCHILL, SAMUEL J. WALKER, HENRY F. HELMHOLZ, SAMUEL AMBERG. *Assistants:* DRs. G. L. KAUFFMAN, GEORGE E. BAXTER, CHARLES SCHOTT, H. H. KLEINFELL, LORIN C. COLLINS, SIGURD KRAFT, ARTHUR HENRY PARMELEE, ELMER C. LEININGER.

Attending Neurologist: DR. THOR ROTHSTEIN.

Attending Surgeons: DRs. COLEMAN G. BUFORD. *Associates:* BENJAMIN F. DAVIS, HERMAN L. KRETSCHMER. *Assistants:* DRs. JOHN A. GRAHAM, LELAND E. PHIPPS.

Attending Orthopedic Surgeon: DR. EDWIN W. RYERSON. *Assistants:* ROBERT O. RITTER, NATHANIEL C. NELSON.

Attending Laryngologist: DR. DAVID FISKE. *Assistant Attending Laryngologists:* DRs. JOHN C. WILLIAMS, EDWARD P. NORCROSS, DANIEL B. HAYDEN.

Attending Ophthalmologist: DR. ALFRED M. HALL. *Assistant:* DR. DANIEL EISS.

Attending Dermatologist: DR. ARTHUR N. MACKAY.

Pathologist: DR. RICHARD F. AUSTIN.

Resident Physician: DR. VIRGIL D. GREER. *Assistant Resident Physician:* DR. BENJAMIN RAPPAPORT.

THE HOME FOR DESTITUTE CRIPPLED CHILDREN, situated about a half-mile from the College, has about 100 beds and an out-patient department. Under the contract recently entered into between the directors of the Home and the trustees of Rush Medical College this clinical material is made available to the Faculty and students of the College for instruction and research. It affords excellent opportunities in Orthopedic Surgery.

STAFF OF THE HOME FOR DESTITUTE CRIPPLED CHILDREN

CONSULTING STAFF

- DR. JAMES B. HERRICK, Department of Medicine.
DR. ARTHUR DEAN BEVAN, Department of Surgery.
DR. JOHN M. DODSON, Department of Pediatrics.
DR. THOR ROTHSTEIN, Department of Neurology.
DR. WILLIAM H. WILDER, Department of Ophthalmology.
DR. E. FLETCHER INGALS, Department of Nose and Throat.
DR. LUDVIG HEKTOEN, Department of Pathology.
DR. OLIVER S. ORMSBY, Department of Dermatology.

ATTENDING STAFF

- DRS. E. W. RYERSON, WALLACE BLANCHARD, and CHARLES A. PARKER, Orthopedic Surgeons.
DR. S. R. SLAYMAKER, Department of Medicine.
DR. C. G. GRULEE, Department of Pediatrics.
DR. PETER BASSOE, Department of Neurology.
DR. JOHN B. ELLIS, Department of Ophthalmology.
DR. J. E. RHODES, Department of Nose and Throat.
DR. GEORGE E. SHAMBAUGH, Department of Otology.
DR. E. L. McEWEN, Department of Dermatology.
DR. DEAN D. LEWIS and CARL B. DAVIS, Department of General Surgery.
DR. HUGO AD OLDENBORG, Department of Kinesitherapy.
DR. FREDERICK BROWN MOOREHEAD, Department of Oral Surgery.

ASSOCIATE ATTENDING STAFF

- DR. CHARLES M. JACOBS, Associate Orthopedic Surgeon.

ASSISTANT ATTENDING STAFF

- DRS. THOMAS P. LYNAM, EMIL J. HOGLUND, HARRISON WILLIS MALTBY, and JACOB MYER, Department of Orthopedic Surgery.
DR. WILLARD WOODARD DICKER, Department of Medicine.
DR. DALLAS B. PHEMISTER, Department of General Surgery.
DR. EDWIN MCGINNIS, Department of Nose and Throat.

THE MEMORIAL INSTITUTE FOR INFECTIOUS DISEASES, endowed by Mr. and Mrs. Harold McCormick, and its associated DURAND HOSPITAL FOR CONTAGIOUS DISEASES, erected as a memorial to the late Anna W. Durand, is situated one block south of the College. The hospital, which has about 50 beds, receives only charity cases afflicted with contagious disease. The students of the College, in small groups, visit and study these cases in the course of their required work.

STAFF OF THE DURAND HOSPITAL OF THE MEMORIAL
INSTITUTE FOR INFECTIOUS DISEASES

Consulting Physicians: DRs. FRANK BILLINGS, JOHN M. DODSON, JAMES B. HERRICK, SAMUEL R. SLAYMAKER.

Consulting Surgeon: DR. DEAN D. LEWIS.

Consulting Laryngologist: DR. STANTON A. FRIEDBERG.

Attending Physicians: DRs. GEORGE H. WEAVER, ERNEST E. IRONS.

Resident Physician: DR. CLIFFORD G. WELLS.

IN THE COOK COUNTY HOSPITAL, which is situated opposite the College, are treated about 20,000 patients annually. In this institution are given about forty clinics a week, including all varieties of medical and surgical cases. The facilities for the study of Pathology which are offered at the Cook County Hospital are unexcelled in this country. Between 300 and 400 post-mortems are made annually in the necropsy theater by Associate Professor LeCount, Assistant Professor Wells, and the other pathologists of the hospital.

Clinical courses in the Cook County Hospital are offered to the students of Rush Medical College by the following members of the Faculty:

Attending Physicians: DRs. SAMUEL R. SLAYMAKER, JOS. L. MILLER, JOS. A. CAPPS, THEODORE TIEKEN, MOSES M. PORTIS, LUDWIG M. LOEB, ERNEST E. IRONS, WILBER E. POST, WALTER HAMBURGER, LEON BLOCH, ELLIS K. KERR, ROGER T. VAUGHAN, ARCHIBALD HOYNE.

Attending Neurologist: DR. GEORGE W. HALL.

Attending Pediatricists: DRs. MAY MICHAEL, AUGUST STRAUCH.

Attending Surgeons: DRs. CHARLES A. PARKER, A. BELCHAM KEYES, PAUL OLIVER.

Associate Attending Obstetrician: DR. GEORGE W. LEE.

Associate Attending Gynecologist: DR. CAREY CULBERTSON.

Attending Laryngologist: DR. STANTON A. FRIEDBERG.

Attending Ophthalmologists: DRs. E. V. L. BROWN, CHARLES G. DARLING.

Attending Pathologists: DRs. E. R. LECOUNT, H. G. WELLS.

IN 1915 the COUNTRY HOME FOR CONVALESCENT CHILDREN, at Prince Crossing, Illinois, a few miles west of Chicago, entered into affiliation with Rush Medical College. It has for its purpose the care, cure, and education of helpless and crippled children.

ATTENDING STAFF OF THE COUNTRY HOME FOR CONVALESCENT
CHILDREN

Orthopedic Surgeons: DR. JOHN REDLON, Chief of Staff; DR. WALLACE BLANCHARD, DR. CHARLES A. PARKER, DR. HENRY B. THOMAS.

Consulting Surgeon: DR. ARTHUR DEAN BEVAN.

Consulting Physician: DR. JAMES B. HERRICK.

Laryngologist and Otologist: DR. GEORGE E. SHAMBAUGH.

Oculist: DR. EMORY HILL.

Oral Surgeon: DR. FREDERICK B. MOOREHEAD.

In 1915 ST. JOSEPH'S HOSPITAL, 2100 Burling Street, entered into affiliation with Rush Medical College. This hospital, conducted by the Sisters of Charity, St. Vincent de Paul, has 210 beds.

ATTENDING STAFF OF ST. JOSEPH'S HOSPITAL

Physicians: DR. ARTHUR A. SMALL, DR. GEORGE F. DICK.

Neurologist: DR. RALPH HAMILL.

Surgeons: DRS. C. HUGH McKENNA, DR. CARL WAGNER, DR. WILLIAM H. HESSERT.

Obstetricians and Gynecologists: DR. PHILIP S. DOANE, DR. WALLACE F. GROSVENOR.

Laryngologists and Otologists: DR. J. HOLINGER, DR. A. A. HAYDEN, DR. J. Z. BERGESON.

Ophthalmologist: DR. JOHN B. ELLIS.

Pediatrist: DR. HENRY F. HELMHOLZ.

Genito-urinary Department: DR. CHARLES M. McKENNA.

Dermatologist: DR. WILLIAM A. QUINN.

Pathologist: DR. GEORGE F. DICK.

Extra-mural courses.—Through the courtesy of the medical attendants and managing officers of several hospitals and dispensaries within convenient distance of the College extra-mural clinical courses are offered to the students of Rush, in small groups, and the clinical material available for teaching has thus been greatly augmented. Such courses are offered at the West Side Hebrew Dispensary, treating over 30,000 cases annually; at St. Luke's Hospital, with about 2,000 cases annually; at the Illinois Charitable Eye and Ear Infirmary, treating about 1,000 cases; at the Chicago Isolation Hospital, and at St. Anthony's Hospital, with about 100 beds.

FELLOWSHIPS, HOSPITAL INTERNES, AND PRIZES

(At Rush Medical College)

FELLOWSHIPS

The following fellowships have been provided in the several departments:

1. The Fellowship in Chemistry. Not to be awarded for 1917-18.
2. The Fellowship in Pathology. Awarded to PATRICK THOMAS MCCARTHY.
3. The "Dane Billings Memorial Fellowship in Medicine," founded by Professor Frank Billings. Awarded to DR. FREDERICK WILLIAM GAARDE.
4. The "Daniel R. Brower Fellowship," founded by the late Professor Daniel Roberts Brower, in the Department of Medicine. Not awarded for 1917-18.
5. The "Nicholas Senn Fellowship in Surgery," founded by the late Professor Nicholas Senn. Awarded to DR. EDWIN MORTON MILLER.
6. The "A. D. Thompson-Bevan Fellowship in Surgery and House Surgeonship in the Presbyterian Hospital," established in 1915 through the generosity of Mr. A. D. Thompson, Duluth, Minn., and Professor Arthur Dean Bevan. Awarded to DR. GATEWOOD.

7. The "Francis A. Hardy Fellowship in Surgery and Assistant House Surgeonship in the Presbyterian Hospital," maintained by Mr. Francis A. Hardy. Awarded to Dr. WARREN P. SIGHTS.

HOSPITAL INTERNES

Positions as internes, through a competitive examination held by the respective hospital staffs, are open each spring to graduates of Rush Medical College in the following Chicago hospitals: Presbyterian, Children's Memorial, Home for Destitute Crippled Children, Cook County, Michael Reese, St. Joseph's, St. Elizabeth's, St. Luke's, Augustana, Chicago, Alexian Brothers', Passavant, Chicago Polyclinic, German, Norwegian, Illinois Charitable Eye and Ear Infirmary, Baptist, St. Anthony's, Swedish, Chicago Maternity, Bridewell, Columbus, United States Marine, Washington Park, and others, and in a much larger list of institutions outside of the city of Chicago which make appointments from the roll of qualified students of the Senior class in Rush Medical College. The occupants of these positions receive their board and lodging and acquire experience in every department of practical Medicine and Surgery.

For several years past every graduate who was able and willing to accept an internship has secured such, and it has been impossible to fill a number of vacancies in desirable hospitals.

PRIZES

The Benjamin Rush Prize.—A medal of the value of \$50 is given by the Faculty at each commencement to that member of the graduating class who passes the highest examination in every department of Medicine represented that year in the examination for the degree.

The Daniel Brainard Prize.—A medal is annually given by the Faculty to the student who makes and presents to the College Museum the best accepted dissection in Surgical Anatomy.

The Freer Prizes.—These prizes are derived from the income of a fund presented to the College by the late Nathan M. Freer, of the Board of Trustees, as a memorial to the names of two honored members of his family long identified with the highest interests of this institution.

*The J. W. FREER Medal and the sum of \$50 are awarded as a first prize to that member of the Junior or Senior class who presents the best thesis involving original investigation on the part of the student. A second prize of \$25 is awarded to the next successful competitor. The theses must be submitted to the Dean of Students on or before April 1, 1918.

The prize was awarded in 1917 to Louis D. Moorehead for his thesis entitled "The Action of the Bitter Tonics on the Appetite in Health and in Disease." The second prize was awarded to Eugene O. Chimene for his thesis entitled "The Resistance of the Bacillus Paratyphosus to Disinfectants."

*The L. C. P. FREER Medal and the sum of \$50 are offered as a first prize to that member of the Freshman or Sophomore class who presents the best thesis

* *Rules governing the award of the Freer medals.*—(1) The candidate must present his thesis in typewritten form. (2) Each candidate may present but one thesis. (3) As the purpose of the medals is to stimulate research, only those theses will be considered that have been written in competition for the medal. This will exclude those published previous to their presentation to the committee and those that were written for a degree. (Four applicable to the J. W. Freer Medal only.) Only those theses that are submitted by bona-fide Juniors and Seniors will be considered. Students acting as assistants to instructors and receiving compensation therefor cannot compete for the prize.

involving original investigation on the part of the student. A second prize of \$25 will be awarded to the next most successful of the competitors. *This prize will be competed for by students in the medical courses of the University.* The theses must be placed in the hands of the Dean of Students by April 1, 1918.

Medical scholarships as prizes for research.—The Trustees of the College have established three scholarships in the Junior and Senior years as prizes for the best theses involving original work in any of the branches usually included in the first two years of the medical curriculum: anatomy, both gross and microscopic, embryology, neurology, physiology, physiological chemistry, pharmacology, bacteriology, or pathology. This competition is open to students completing the second year of the medical course in university medical schools whose standards are equal to those of Rush Medical College. The first prize scholarship is the tuition for three quarters in Rush Medical College (\$180), the second prize tuition for two quarters (\$120), and the third prize tuition for one quarter (\$60). Theses must be sent to the Dean of Medical Students, Rush Medical College, on or before April 1, 1918.

The first prize was awarded in 1917 to Dean P. Crowell, of the University of Oregon, for his thesis entitled "The Variation of the Hydrogen Ion Concentration of the Human Blood." The second prize was awarded to J. Donald Milligan, of the University of Kansas, for his thesis entitled "The Bacteriology of Normal Urine." The third prize was not awarded.

The Edward L. Holmes Prize.—In honor of the late Edward L. Holmes, for many years professor of diseases of the eye and ear in Rush Medical College and for several years its president, who during his long career rendered distinguished services to the institution, the Trustees have established the Edward L. Holmes Prize, for original research, to consist of a table and scholarship for one season at the Marine Biological Laboratory at Woods Hole, Mass. This prize is offered in recognition of the great service which is rendered to the medical sciences by research work in biology. The prize will not be offered for 1917-18.

The Henry M. Lyman Prize.—In memory of Henry M. Lyman, who for many years devoted much of his best energies and his unusual ability to the upbuilding of Rush Medical College, and who served successively as Professor of Physiology and Neurology and Professor of Medicine, and who was later Dean of the Faculty, a fund has been created by his children, the proceeds of which, amounting to \$25 a year, will be offered as a prize to the member of the Junior or Senior class who shall present the best thesis on a topic connected with internal medicine. This thesis must include the results of original laboratory or ward work or of personal clinical observation. Before the work is undertaken by the student the Head of the Department of Medicine should be consulted as to the choice of subject and other details.

This prize was awarded in 1917 to James E. Lebensohn for his thesis entitled "Has Secretin a Therapeutic Value?"

The Howard T. Ricketts Prize.—In memory of Dr. Howard Taylor Ricketts, at one time a member of the Department of Dermatology, who died of typhus fever, while investigating that disease, in the City of Mexico May 3, 1910, this Department has established a prize in Dermatology. This prize, of the value of \$25, will be awarded annually to the student presenting the best thesis embodying the results of original investigation on some topic related to Dermatology.

SCHOLARSHIPS AND OTHER AID

(At the University of Chicago)

A. HONOR SCHOLARSHIPS

Honor Entrance Scholarships.—To a limited number of students of high rank from co-operating high schools and honor scholarship (\$150 in tuition fees) is granted each year. Holders of honor scholarships are not required to render service to the University. These scholarships may be revoked at the end of any quarter if the holder's work is not maintained at a satisfactory grade.

Competitive Examination Entrance Scholarships.—In connection with the annual conference of the University in co-operation with its secondary schools held at the University in April of each year competitive examinations in certain subjects are open to seniors in the co-operating high schools. Each student is expected to take a principal and secondary examination in subjects of his own choice within certain limits designated by the University. There are likewise contests in reading aloud and effective speaking. A total of eleven scholarships are given covering tuition (\$150) for the next academic year.

Second-Year Honor Scholarships.—To twenty Junior College students, who have shown exceptional ability in the work of the first year, honor scholarships are granted for the second year (three quarters) for the undergraduate course. One of these is called "The Lillian Gertrude Selz Scholarship" and grants full annual tuition fees + \$80 in cash to the young woman who completes the first year with highest standing.

Senior College Honor Scholarships.—To twelve Senior College students nominated by the departments for excellent work in the Junior College courses honor scholarships are granted to cover the tuition fees of the third year.

Graduate Honor Scholarships.—Twenty scholarships are assigned to students who have completed with honor the work of the Senior College. Each department of the University, with the approval of the Committee on Scholarships, has the privilege of naming a student who is for that year the honor student of the Senior College in that department, and to this student there is given a graduate scholarship yielding in each case a sum equal to the University fees for three quarters, provided the student continues his studies in the Graduate Schools. The assignments are made in the Spring Quarter, and in no case does a scholarship continue beyond the end of the Spring Quarter next following the date of assignment.

Undergraduate.—A limited number of scholarships yielding a part or all of the tuition fees for three quarters are available for undergraduate students of attainment and promise. Holders of these scholarships are not required to render service to the University. These scholarships may be revoked at the end of any quarter if the holder's work is not maintained at a satisfactory grade.

The following specially endowed honor scholarships are also available for undergraduate students:

"The Kelly Scholarship," which yields the annual tuition fees.

"The Walter D. Löwy Scholarship," which yields full annual fees and is granted to a student of high scholarship, preferably to a person of the Jewish faith.

"The Henry C. Lytton Scholarship," which yields the annual tuition fees.

"The Marie J. Mergler Scholarship," which yields annual fees to a young woman student specializing in Physiology.

"The Joseph Reynolds Scholarships," which yield \$1,455 per year, available in tuition fees for men students.

"The Scammon Scholarship," which yields \$25 toward the tuition fees of a Chicago student.

"The Charles H. Smiley Scholarship," which yields full annual fees and is granted to a student of high scholarship, preferably to a colored student.

"The Peter Tilton Scholarship," which yields \$50 in tuition fees.

"The University Scholarship," which gives full annual fees to a student of high scholarship specializing in Semitics.

"The Catherine M. White Scholarships," which yield annual fees for three students of high scholarship.

B. COMPETITIVE AND PERSONALLY BESTOWED SCHOLARSHIPS

Certain scholarships are bestowed either by examination or by personal appointment as follows:

"The Enos M. Barton Scholarship," endowed by Mr. Enos M. Barton, of Chicago, provides for the tuition fees of a student for three quarters. It is awarded annually to an undergraduate student whose scholarship in preparatory work and in college shall reach B, and who shall maintain this standing subject to forfeiture.

"The Permelia Brown Scholarship," about \$1,250 per annum, provided for under the will of Permelia Brown, offers aid to unmarried American-born women students, residents of Chicago, Cook County, Illinois. Application should be made to the Dean of the Faculties.

"The Civil Government Scholarship" yields \$200 annually and is awarded to an undergraduate who has been in residence two quarters, who has no more than nine majors, who has an average grade of C, and who in the first week of the Spring Quarter passes the best examination on the subject of "Civil Government of the United States." No award is made unless the examination mark is at least 80 per cent.

"The Colby Scholarships" yield full annual tuition fees for five graduates of Wayland Academy.

"The Zwinglius Grover Memorial Scholarship," endowed by the Alumnae Association of Dearborn Seminary, yields annual fees for a woman student.

"The David Blair McLaughlin Prize." This prize of approximately \$50, the annual net income of \$1,000, established in memory of David Blair McLaughlin, 1895-1914, a student in the College of Literature of the Class of 1916, is awarded annually to a student having credit for not more than two years of college work who has shown special skill and sense of form in the writing of English prose.

"The Pillsbury Academy Scholarship" yields \$60 annually toward the fees of a graduate of Pillsbury Academy.

"The Howard T. Ricketts Prize," about \$250, the net annual income of \$5,000, is awarded on the third day of May to a student of the University of Chicago presenting the best results in research in Pathology or Bacteriology.

"The Elbert H. Shirk Scholarship," available for students nominated by the Shirk Estate, Peru, Indiana, yields the annual tuition fees.

"The Henry Strong Scholarships," provided for under the will of General Henry Strong, offer aid to students possessing not only zeal for scholarship but also character and those traits tending to leadership. Four scholarships, yielding in the aggregate \$1,000, will be assigned annually. Application should be made to the President before August 1.

"The Talcott Scholarships," endowed by Mr. William A. Talcott, of Rockford, Illinois, provide tuition fees to the amount of \$480 per year. This fund is reserved for graduate students, preferably graduates of Rockford College.

Five "Public Speaking Scholarships" (tuition fees for one quarter) are granted to the winners in the quarterly Public Speaking Contests in the Junior Colleges.

"Oratorical Contest Scholarships" are granted to Senior College students annually as follows: the first prize, tuition fees for three quarters; the second, tuition fees for two quarters; the third, tuition fees for one quarter.

Three scholarships, tuition fees for one quarter, are awarded to the members of the Freshman debating team.

"The University Debate Scholarships" provide for the awarding of six scholarships, tuition fees for two quarters, to the six members of the University debating teams.

A prize of \$100 founded in memory of Mrs. Florence James Adams is offered to students for excellence in artistic reading. The competition occurs in June.

"Julius Rosenwald Oratorical Prizes" are granted to Senior College students annually as follows: \$100 cash to the speaker ranking first; \$50 cash to the speaker ranking second.

Medical scholarships as prizes for research.—In order to encourage the investigative spirit and method among prospective medical students in the list of colleges recognized by the University of Chicago, the University offers three or four prize scholarships in the Medical Courses for the best theses involving original work in one of the sciences fundamental to medicine: physics, chemistry, or any of the biological branches. Two or three of these are open to undergraduates only, as follows: The first prize scholarship, a sum equal to the tuition for three quarters (\$180); the second scholarship, a sum equal to the tuition for two quarters (\$120); and the third scholarship, a sum equal to the tuition for one quarter (\$60). Students submitting theses in this group must be members of the Senior class of the college which they are attending and must secure the Bachelor's degree from said college and be eligible to enter the Graduate School of the University of Chicago in order to claim the scholarship won.

One prize scholarship, yielding a sum equal to the tuition for three quarters (\$180) for a thesis similar to the above, is open only to graduate students in these colleges.

The competition for these prize scholarships in medicine is open only to students in colleges which are in the recognized list of the University of Chicago.

Theses must be in the hands of the Dean of Medical Students, University of Chicago, on or before April 1, 1918. Further particulars in regard to these scholarships may be had on application to the Dean.

N.B.—*These prize scholarships may not be applied on deferred tuition bills or on notes.*

The first prize was awarded in April, 1917, to Ralph D. Lillie, of Leland Stanford Junior University, for his thesis entitled, "The Histogenesis of the Blood in *Bufo Halophilus*." The second prize was awarded to Hal W. Sherman, of the University of Kansas, for his thesis entitled "Thermo-Stabile and So-called Thermo-labile Hemolysins." The third prize was awarded to R. P. Rauch, of Miami University, for his thesis entitled, "An Abnormal Pig."

C. UNIVERSITY SERVICE

DEPARTMENTAL SERVICE

a) *Graduate*.—A limited number of assignments to service, yielding a part or all of the tuition fees for three quarters, are available for graduate students of attainment and promise. This service is usually rendered in the department in which the student is doing the major part of his work. Students in departmental service pay their tuition fees in cash at the beginning of each quarter. At the close of the quarter they receive a cash payment for the amount of the service if it has been satisfactorily rendered.

Assignments of this class are awarded preferably to students who desire to work in a special department rather than to those who desire to pursue general courses. Application should be made to the Deans of the Graduate Schools.

b) *Undergraduate*.—On recommendation of departments a limited number of assignments to departmental service are made to students in the Senior Colleges. Such students render ten hours' service a week in the departments by which they have been recommended. Application should be made to the Dean of the College of Science and to the Dean of the School of Commerce and Administration.

LIBRARY SERVICE

Applicants for positions in Library service are appointed to service by the Libraries. Students holding such appointments must maintain a grade of academic work satisfactory to their Deans and of service satisfactory to the Libraries. Such students are required to pay their fees in cash at the office of the Cashier within the first five days of the quarter. For whatever service they may satisfactorily render they will be paid in cash at the end of the quarter.

CHOIR AND BAND SERVICE

Another means of assistance to students consists of service in the University Choir and the University Band. Inquiries concerning such service may be addressed to the Director of the University Choir and the Director of the University Band, care of the University of Chicago.

D. OUTSIDE EMPLOYMENT

The University maintains an Employment Bureau through which many kinds of work are found for students who are compelled to depend in whole or in part upon their own resources.

E. THE STUDENTS' FUND SOCIETY

From a fund created by friends of the University loans are made to many students of worth and promise who need temporary aid. This fund is limited and is usually exhausted early in the academic year.

A special circular entitled *Assistance to Students at the University of Chicago* will be sent on request. It gives details concerning all the forms of aid, routine of application, etc.

FELLOWSHIPS

1. *The University Fellowships.*—The University appropriates annually the amount of twenty-one thousand five hundred dollars (\$21,500) for Fellowships in the Graduate Schools and \$2,700 in the Divinity School. These Fellowships are awarded by the Trustees, upon the recommendation of the President and the nomination of particular departments, to graduate students who desire to pursue advanced work in some special line. About one hundred Fellowships, ranging in individual value from \$120, or tuition fees for three quarters, to \$520, are assigned each year.

The University asks of its Fellows a modicum of service, consisting of work (a) as an instructor; (b) as an assistant in reading examination papers; (c) as an assistant on a University journal; or (d) as an assistant in one of the departmental laboratories, museums, or libraries. In no case is a Fellow expected to devote so much time to the work here indicated as to interfere seriously with his own study.

Each Fellow makes a written report to the Dean at the beginning of each quarter. This report outlines his work as a student, and the work assigned to him as an officer of the University for the current quarter, and is indorsed by the head of the department. The report blanks may be procured at the Information Office.

2. *Applications for Fellowships.*—Applications for Fellowships should be addressed to the Deans of the Graduate Schools of the University *and should be in their hands on or before March 1.*

3. *Appointments to Fellowships.*—

a) *Date.*—The annual assignment of Fellowships is made early in April. A Fellowship is available for any three of the four quarters, beginning with the Summer Quarter, following the date of appointment.

b) *Attainments required.*—The candidate must have attained proficiency in some department. In general, he should have spent at least one year in resident study after receiving his Bachelor's degree. In making the appointment special weight is given to theses indicating the candidate's ability to conduct original investigation.

4. *Special Fellowships.*—In addition to the regular University Fellowships mentioned above, there are special Fellowships offered by individuals. These vary somewhat in number and amount from year to year. At present they are as follows:

a) *The Bucknell Fellowship*, yielding \$400, offered by Mr. Charles Miller of Franklin, Pa., is open to graduates of Bucknell University. The appointment to this Fellowship is made by the faculty of Bucknell University.

b) *The Joseph B. Loewenthal Fellowship in Chemistry*, endowed by Mr. Berthold Loewenthal, of Chicago, as a memorial of his son, Joseph B. Loewenthal. It yields about \$400 to the incumbent annually appointed, and is awarded on the nomination of the Department of Chemistry and the recommendation of the President of the University.

c) *The Gustavus F. Swift Fellowship in Chemistry*, endowed by Mrs. Gustavus F. Swift, Chicago, as a memorial of her husband, Gustavus F. Swift. It yields about \$520 to the incumbent annually appointed, and is awarded for

especial ability in research on the nomination of the Department of Chemistry and the recommendation of the President of the University.

d) *The Edith Barnard Memorial Fellowship in Chemistry*, established in memory of Dr. Edith Barnard, yields \$120 a year, and is awarded by the University, on nomination of the Department of Chemistry, to some deserving graduate student.

MEDICAL SOCIETIES

The fact that a very large number of medical men practice in Chicago has led to the development of a number of medical societies, general and special. Among the more interesting to medical students in the early years of their course is the Chicago Pathological Society. A large number of clinical societies will interest the student, particularly in the later years of his course.

The University of Chicago Biological Club meets on the second Tuesday evening of each month at 7:45 sharp. At the meetings of this society the advanced work and original research of the various laboratories will be reported, and topics of general medical and scientific interest will be discussed. The meetings are open to medical students. The Society holds no meetings during the Summer Quarter.

ALUMNI ASSOCIATION

The Alumni Association of Rush Medical College holds yearly meetings. These meetings precede the regular commencement of the College, which will occur on June 12, 1917. All graduates of the College in good standing are eligible to membership, which can be obtained by the payment of one dollar, the annual dues. The officers for the year ending July 1, 1916, are as follows:

OFFICERS

PRESIDENT—John Edwin Rhodes, '86, Chicago
FIRST VICE-PRESIDENT—Harvey A. Tyler, '89, Chicago
SECOND VICE-PRESIDENT—William H. Bohart, '91, Chicago
THIRD VICE-PRESIDENT—Ralph Waldo Carpenter, '16, Chicago
NECROLOGIST—J. J. Stoll, '85, Chicago
TREASURER—Elmer L. Kenyon, '96, Chicago
SECRETARY—Charles A. Parker, '91, Chicago

DIRECTORS

ONE YEAR

William Van Werden, '85, Des Moines, Iowa
Charles D. Camp, '79, Chicago

TWO YEARS

Homer K. Nicoll, '09, Chicago
Rollin T. Woodyatt, '02, Chicago

THREE YEARS

George H. Coleman, '13, Chicago
B. M. Linnell, '93, Chicago

ALUMNI RELATIONS COMMITTEE

John Ritter, '80, *Chairman*

Oliver H. Avey, '01, Payette, Idaho (Tri-State Oregon, Washington, and Idaho)	E. F. McCampbell, '12, Columbus, Ohio
J. W. Chamberlin, '82, St. Paul, Minn.	F. A. Speik, '07, Los Angeles, Cal.
J. K. Humphreys, '06, Salt Lake City, Utah	Lorenzo N. Grosvenor, '02, Huron, S.D.
	Fred A. Tucker, '97, Noblesville, Ind.

BULLETIN COMMITTEE

Morris Fishbein, '12	Bird McP. Linnell, '93
Elmer L. Kenyon, '96	George H. Weaver, '89

ENTERTAINMENTS AND ALUMNI CLINICS

Ernest L. McEwen, '97, *Chairman*

E. E. Irons, '03	Charles H. Parkes, '97
John Ritter, '80	Edward O. Hutchinson, '91

MEMBERSHIP COMMITTEE

Bird McP. Linnell, '93, *Chairman*

Harry E. Mock, '06	E. L. McEwen, '97
Eugene S. Talbot, Jr., '10	John Ritter, '80
Elmer L. Kenyon, '96	

The dues should be sent to the Treasurer of the Association, Dr. Elmer L. Kenyon, 104 South Michigan Boulevard, Chicago.

The Association publishes a small *Bulletin* four times a year. This for the present will be sent to members without extra charge. The Association also supports a Fellow doing research work in residence at the College. Contributions to this fund are solicited.

Alumni are requested to inform the College Registrar, James H. Harper, Rush Medical College, Chicago, of any change of address. They will also confer a favor by sending him a copy of any address, program, or other document relating to the early history of the College.

GRADUATES IN THE SPRING QUARTER, 1916

The degree of Doctor of Medicine was conferred on the following students at the close of the Spring Quarter, June 10, 1916.

HOSPITAL INTERNSHIP SECURED

Arthur Kirby Baldwin	Michael Reese Hospital
Harvey Raymond Basinger	Presbyterian Hospital
Nathan Lionel Blitzsten	Cook County Hospital
Martin Robert Broman	Cook County Hospital
Edward Herman Brunemeier	Evangelical Deaconess Hospital
William Burk	Wesley Hospital
Murl T. Capps	Denver County Hospital

Ralph Waldo Carpenter
Charles Anthony Cibelius
Henry Hoyt Cox
Raymond Osborne Dart
William Joakim Eklund
Robert Leo Elliston
Charles Paul Engel

Kendal Phelps Frost
Taylor Wilson Funkhouser
Martha Jane Gifford

James P. Gillis
Earl William Gilroy
Fred Leib Glascock
Phyllis Greenacre
Philip B. Greenberg
Roll O. Grigsby
Kenneth Hallock
Burt Horace Hardinger
Edwin Walter Hirsch
William Reginald Jackson

Oscar Theodore Kalin
Owen King
W. Ivan King
Robert William Kispert
Arthur Raymond Knauf
Aloysius James Larkin
Walter Eber Leonard
Jacob Lifschitz
John Rees Llewellyn
Arnt Lovas
Leslie Earl Luehrs
Simon Oscar Lund
Herbert Otto Lussky
Wilmer Delavergne McGrath
Elmer Leonard Mertz
Jacob Meyer
Frank Porter Miller
Henry James Millstone
Claude William Mitchell
Jacob D. Mulder
Claude W. Munger
Harold E. Olney
Ralph Orlando Porter
Isidore A. Rabens
Harold A. Ramser

Cook County Hospital
St. Luke's Hospital
Wesley Hospital
Presbyterian Hospital
Cincinnati General Hospital
New Haven (Conn.) Hospital
Evanston Hospital and Inland Steel
Hospital
Presbyterian Hospital
Michael Reese Hospital
New England Hospital for Women and
Children, Boston, Mass.
Los Angeles (Cal.) County Hospital
Cook County Hospital
St. Luke's Hospital
Phipps Clinic, Baltimore, Md.
Wesley Hospital
Presbyterian Hospital
Cook County Hospital
Wesley Hospital
Presbyterian Hospital
Christian Church Hospital, Kansas
City, Mo.

Bethesda Hospital, St. Paul, Minn.
Washington Boulevard Hospital
Coeur d'Alene (Idaho) Hospital
St. Luke's Hospital
Illinois Steel Co. Hospital, Gary, Ill.
Cook County Hospital
Los Angeles County Hospital
Cook County Hospital
L.D.S. Hospital, Salt Lake City, Utah
Michael Reese Hospital
Cincinnati (Ohio) General Hospital
St. Barnabas Hospital, St. Paul, Minn.
Evanston Hospital
Presbyterian Hospital
Children's Memorial Hospital
Cook County Hospital
Presbyterian Hospital
Chicago Polyclinic Hospital
Presbyterian Hospital

Children's Memorial Hospital
Wesley Memorial Hospital

Cook County Hospital
St. Joseph's Hospital

Mildred Jessie Roberts	Northwestern Hospital, Minneapolis, Minn.
Edmund Carl Roos	Cook County Hospital
William Lytle Ross, Jr.	Cincinnati General Hospital
Paul H. Rowe	Washington Boulevard Hospital
Jacob Roth Rupp	Los Angeles County Hospital
John A. Saari	Presbyterian Hospital
Coelestyn Benno Semerak	Research work
Elmer George Senty	C., M. and St. P. Ry. Hospital, Ma- bridge, S.D.
Lester Alvin Smith	Cook County Hospital
William Le Roy Smith	St. Joseph's Hospital
Frank Lee South	
Walter James Spencer	Chicago Isolation Hospital
William Warren Stevenson	State Hospital, Ionia, Mich.
Charles Klaus Stulik	Out-patient Obstetrical Service, Pres- byterian Hospital
Clinton Daniel Swickard	Presbyterian Hospital
William Amory Taylor	Presbyterian Hospital
Karl J. Theige	Presbyterian Hospital
Charles Ray Tompkins	Washington Boulevard Hospital
Bertha Torchiani	Woman's Hospital, Detroit, Mich., and Children's Memorial Hospital
Isidor Harrison Tumpowsky	Cook County Hospital
Francis Edward Turgasen	Cook County Hospital
James Harry Vetter	St. Luke's Hospital
Ralph Gilmer Willy	Cook County Hospital

GRADUATES FOR THE SESSION OF 1916-17

The degree of Doctor of Medicine was conferred on the following students at the close of the Summer Quarter, August 31, 1916:

Louis Henry Braafladt	
Mamie Leola Carrico	Memorial Hospital, Worcester, Mass.
Flavia May Doty	Teaching, McKinley High School
Charles Frederick DuBois	
Odd Eckfelt	
Roland George Lewis Mayer	Cresbard, S.D.
John Herbert Nichols	Teaching, Ohio State University
Maurice Pearce Rogers	Practicing, Rockford, Ill.
Conrad Oliver Rogne	Presbyterian Hospital
Maurice Jacob Silver	Illinois Steel Co. Hospital, Gary, Ind.
Eilef A. Smedal	Presbyterian Hospital
Irving W. Steiner	Harvey, Ill., Assistant to Dr. Noble
Melvin Albert Vogtel	Practicing, New Ulm, Minn.
Robert Lupinski Zaegel	Denver City and County Hospital, Denver

At the close of the Autumn Quarter, December 22, 1916:

Lucile Spire Blachly	Drumright, Okla.
Albert Gordon Bower	Instructor in Bacteriology, University of Chicago
Valiant Dee French	St. Joseph, Mo.
Harry Clifford Gebhart	United States Navy
Frances Houston	Memorial Hospital, Worcester, Mass.
Max M. Kulvinsky	
Harry Paul Martin	University of Chicago, Physiology Department
Stephen A. Schuster	Illinois Central R.R. Hospital
William Alexander Thomas	Presbyterian Hospital

At the close of the Winter Quarter, March 23, 1917:

James Eddy Arnold	Illinois Steel Co. Hospital, Gary, Ind.
Cyril Danilovitch Billik	Children's Memorial Hospital
Joseph Hardy Chivers	Royal Victoria Hospital, Montreal, Quebec
Fred James Colbert	Weeping Water, Neb.
Russell Dunmire Elliott	Applied to United States Navy Medical Service
Leo Louis Hardt	Presbyterian Hospital
Ethel Regan Harrington	Cincinnati General Hospital
Aaron Elias Kanter	Cook County Hospital
Julian Herman Lewis	Ricketts Laboratory, University of Chicago
William Franklin Moncrieff	St. Francis Hospital, Wichita, Kan.
Dorcie Ray Nugen	County Hospital, Salt Lake City, Utah
Eli Francisco Rambo	Akron City Hospital, Akron, Ohio
Bertha Meserve Shafer	Assistant, Dermatology Department—Dr. Ormsby
Leland Charles Shafer	St. Luke's Hospital
Oscar Wilhelm Tulisalo	Presbyterian Hospital
Arthur Mansfield Washburn	Wesley Memorial Hospital

* The following students are candidates for graduation at the close of the Spring Quarter, June 13, 1917:

Wesley Harrison Acker	Maurice Martin Critchlow
George Herman Anderson	Raymond Evan Davies
Earl Elias Baker	Harry Horace Dilley
Louis Bothman	Martin Leland Dollahan
Arthur Shaw Bristow	John Benedict Doyle
William Joseph Butler	Earl Eames
Olaf Herman Christofferson	Michael Higgins Ebert
Homer Percival Cooper	Henry Scammon Edson

* Internships have not been selected by these students at the time of publication of this *Circular*. The list will be published in the next number of the *Alumni Bulletin* and in the *Circular* for next year.

George Franklin Farman
Michael Henry Flynn
Hugh M. Fogo
Francis Leo Foran
Eva Frazer
Samuel Agee Fuqua
Eugene Alfred Gatterdam, Jr.
Rudolph Jacob Gieseler
George Alexander Gray
Spencer Dewitt Guy
Benjamin Harry Hager
Kathleen Regan Harrington
Robert Nathaniel Hedges
William John Henry
Clarence John Hicks, Jr.
William DePrez Inlow
Jay Ireland
Henry Curtis Johnson
Harold Oakland Jones
Yngve Joranson
Harry Allison Keener
Raymond Brandt Kepner
Zang Yien Kwauk
Thomas Lahners
James Eleazar Lebensohn
Henry Melvin Lee
Yale Norman Levinson
Warren Leroy Lindsay
Will Ferson Lyon
Patrick Thomas McCarthy
Ernest Charles McGill
Leslie Mackenzie Maitland
David Jacob Margolis
Alfred Lisle Mayfield
Herman Charles Meyer
Edward Frank Mielke
Louis David Moorhead

Fred August Nause
Paul Rexford Neal
Wellwood Mack Nesbit
Donald Hunter O'Rourke
Marie G. Ortmyer
Florence Margaret Patrick
Samuel James Pearlman
Eugene Beauharnais Perry
Clifford Spencer Powell
Charles Armington Robins
Vergil A. Ross
Edward Henry Schlegel
Kate Frances Scott
Henry Shacoff
Abraham Dudley Shapere
Dwight Chace Sigworth
Leroy Hendrick Sloan
Frederick William Slobe
Josephine Elizabeth Smith
George Oliver Solem
Nicholas Cornelius Stam
Moses Elias Steinberg
Arthur Lesley Stotter
Claire LeRoy Straith
Winfield Carey Sweet
Harvey Shepard Thatcher
Richard Ivan Torpin
Eugene Herbert Townsend, Jr.
George Lyle Venable
John William Visser
Italo Fred Volini
Edward Henry Warszawski
Clyde Franklin Watts
Burton Raymond Weston
Frank Argyle Williams
Henry Newton Winn
Lee Roy Woodward

MATRICULATES FOR THE SESSION OF 1916-17

The following list includes only those students who were in attendance during one or more quarters, and who were entitled to take the quarterly examinations.

NOTE.—The naming of a degree not followed by the name of an institution in parentheses is understood to mean a degree conferred at the University of Chicago.

Where no institution is named, it is understood to mean that the student began his career as a Junior at the University of Chicago.

Where no state is mentioned, Illinois is understood.

ABBREVIATIONS.—U.=University; C.=College; S.=School; Hs.=High School; A.=Academy; Sm.=Seminary; Inst.=Institute (or Institution).

PERIOD OF RESIDENCE.—s=Resident during Summer Quarter, 1916; a=Resident during Autumn Quarter, 1916; w=Resident during Winter Quarter, 1917; sp=Resident during Spring Quarter, 1917.

FRESHMEN AND SOPHOMORES

- Abramovitch, William Morris, *sp*, Chicago. Ph.B. '14.
 Adams, James Buchanan, *a*, Montezuma, Ga. Morehouse C.
 Allen, Edward Dudley, *a, w, sp*, Lo Lo, Mont. S.B. (U. of Montana) '15.
 Allen, Isaac Walter, *s*, Salt Lake City, Utah. A.B. (U. of Utah) '15.
 Allen, James Ulysses, *w*, Chicago. Howard U.
 Allison, Minard, *a, w, sp*, Pittsburg, Kan. Senior C.
 Amos, Chester, *s*, Manassas, Va. U. of Virginia.
 Andersen, Walter Michael, *s, a, w, sp*, Chicago. Senior C.
 Anderson, Charles Edward, *w, sp*, Chicago. S.B. (Coe C.) '10.
 Anderson, Janet Alice, *s, a, w, sp*, La Crosse, Wis. State Normal S.
 Anderson, Ruth Amalia, *a, w*, Chicago. S.B. '17.
 Apfelmach, Carl Wesley, *a, w, sp*, Chicago. Senior C.
 Armstrong, Clifford Oakley, *s*, Bloomington. U. of Illinois.
 Ascherman, Elmer Nathaniel, *a, w, sp*, Chicago. Senior C.
 Ashby, Winifred Mayer, *s*, Chicago. S.B. '03.
 Asher, Arthur Graham, *a, w, sp*, Trenton, Mo. Senior C.
 Austin, Florence Olive, *s, a, w*, Mobile, Ala. S.B. '17.
 Baker, Earl Ellis, *s*, Havelock, Neb. S.B. (U. of Nebraska) '15.
 Barborka, Clifford Joseph, *a, w, sp*, Denison, Iowa. Simpson C.
 Bardenwerper, Hulburt Enos, *a, w, sp*, Milwaukee, Wis. Milwaukee State Normal S.
 Barker, Samuel Robert, *s, a, w, sp*, Springfield. Senior C.
 Barnard, Hayden Emil Eberhardt, *s, a, w*, Chicago. S.B. '17
 Barnes, Clarence Albert, *s, a, w, sp*, Albion, Iowa. A.B. (Monmouth C.) '14.
 Bates, Austin David, *a, w, sp*, Scottville, Mich. S.B. (Kalamazoo C.) '16.
 Becker, Harry Fred, *a, w, sp*, Chicago. Senior C.
 Bell, Margaret, *s, a, w, sp*, Chicago. S.B. '15.
 Bell, Robert Graham, *s, a*, Chicago. A.B. (Wabash C.) '08. S.B. '11.
 Benson, Virginia Mary, *sp*, Chicago. Senior C.
 Bezdek, Hugo Frank, *s*, Eugene, Ore. S.B. '07.
 Bjorgo, Carl Walter, *s*, Red Wing, Minn. A.B. (Luther C.) '07.

- Blaisdell, Paul Carrier, *a, w, sp*, Claremont, Cal. A.B. (Pomona C.) '16.
Blincoe, Homer, *s*, Columbus, Kan. A.B. (U. of Kansas) '15; S.M. (*ibid.*) '16.
Bondzinski, John Anton, *a, w, sp*, Chicago. Senior C.
Borchers, William Frederick, *s, a, w, sp*, Chicago. Northwestern U.
Borovosky, Maxwell Philip, *s, a, w, sp*, Chicago. Senior C.
Bosch, Leon Cherest, *a, w, sp*, Holland, Mich. A.B. (Hope C.) '15.
Bowing, Irwin Ellis, *a, w, sp*, St. Cloud, Minn. St. Cloud Normal S.
Bowler, Vincent Brendan, *s, a, w*, Chicago. S.B. '17.
Bradel, Thaddeus Leopold, *s, a, w, sp*, Chicago. Senior C.
Browne, Howard Storm, *s*, Norman, Okla. Oklahoma U.
Browning, Irving Robert, *s, a, w, sp*, Iron Mountain, Mich. S.B. (Michigan Agricultural C.) '12.
Bruff, William Cortland, *a, w, sp*, Atlantic, Iowa. Penn C.
Buchanan, Howard, *sp*, Monmouth. Monmouth C.
Bucholtz, Albert Michael, *s, a*, Kansas City, Kan. A.B. (Wabash C.) '14.
Buck, Benjamin J., *s*, Michigan City, Ind.
Bucklin, Nathaniel J., *a*, Pratt, Kan. A.B. (Friends U.) '16.
Budge, Wallace Hugh, *s, a, w, sp*, Logan, Utah. Utah Agricultural C.
Burcky, Frederic William, *s*, Chicago. S.B. '16.
Burgeleit, Walter Henry, *s*, Springfield. Royal Technical Inst. '13.
Burt, James Henry, *s*, Manhattan, Kan. U. of Michigan.
Butin, James Abram, *a, w, sp*, Fredonia, Kan. A.B. (U. of Kansas) '16.
Butler, Craig Dunn, *s*, Aledo. S.B. (Earlham C.) '14.
Callander, Russell John, *s*, Delaware, Ohio. S.B. '15.
Cameron, Don Bruce, *s, a, sp*, White Pigeon, Mich. Olivet C.
Campione, Nicholas Louis, *s, a, w*, Chicago. S.B. '17.
Cannon, Paul Roberts, *a, w*, Decatur. A.B. (James Millikin U.) '15.
Carino, Jose Maria, *s, a, w*, Bagnio, P.I. S.B. '17.
Carlstrom, Fred J., *a*, New Boston. A.B. (Coe C.) '15.
Carrillo, Jose Gonzalez, *s, a, w, sp*, Baliwag, Bulacan, P.I. Senior C.
Carroll, Charles Hardy, *a, w, sp*, Provo, Utah. A.B. (Brigham Young U.) '12.
Cary, William Ernest, *w, sp*, Gansevoort, N.Y. Ph.D. '16.
Cassady, Thomas Gantz, *s, a, w*, Spencer, Ind. Senior C.
Chang, Wai Kai, *s, a, sp*, Honolulu, H.I. S.B. '16.
Chimene, Eugene Opet, *a*, Houston, Tex. S.B. '16.
Christensen, Herbert Harvey, *w*, Jamestown, Kan. A.B. (Ottawa U.) '14.
Clements, Fred, *s, a, w, sp*, Mt. Vernon, Ind. Indiana U.
Cohen, Henry David, *a, w, sp*, Chicago. Senior C.
Cohen, Joseph Kaiser, *s*, Chicago. Senior C.
Cohen, Seymour Jerome, *s, a, w, sp*, Chicago. S.B. '17.
Collier, Bertha Elsie, *a, w, sp*, Chicago. Ph.B. '15.
Conroy, Francis Robert, *a, w, sp*, Ogden, Utah. U. of Utah.
Cook, Benjamin Franklyn, *w*, Compton. S.B. (Beloit C.) '15.
Cotts, Gerritt, *a, w, sp*, Hudsonville, Mich. S.B. (Michigan Agricultural C.) '14.
Crain, Carroll Francis, *a*, Redfield, S.D. U. of South Dakota.
Crane, Jay James, *a, w, sp*, Hot Springs, S.D. U. of Nebraska.
Crooks, Tony Taylor, *a, w*, Fredonia, Kan. A.B. (U. of Idaho) '09; A.B. (Oxford U. England) '13.

- Cross, Denzil D., *s*, Hollis, Okla. A.B. (Baylor U.) '12.
 Curtis, George Moris, *s*, Minooka. A.B. (U. of Michigan) '10; A.M. (*ibid.*) '10;
 Ph.D. (*ibid.*) '14.
 Cuvellier, John Holden, *a, w, sp*, Minneapolis, Minn. U. of Minnesota.
 Daniels, Luman Elmer, *a, w, sp*, Woodstock. Senior C.
 Davenport, William John, *a, w*, Chattanooga, Tenn. Morehouse C.
 Diamond, Henry Binga, *s, w*, Chicago. S.B. '17.
 Dobbs, Harrison Allen, *a, w, sp*, Berkeley, Cal. A.B. (U. of California) '16.
 Doll, Frank Rolla, *sp*, Chicago. Senior C.
 Douglas, Bruce Hutchinson, *a, w, sp*, Whittier, Cal. A.B. (Whittier C.) '15.
 Duiker, Henry, *a, w*, Grand Rapids, Mich. A.B. (Hope C.) '15.
 Duner, Clarence Swan, *s*, Chicago. Senior C.
 Dykstra, Nicholas, Jr., *a, w, sp*, Chicago. Senior C.
 Earle, Walter Clarence, *a, w, sp*, Des Plaines. Senior C.
 Eastlake, Alfred Chesmore, *s*, Kansas City, Mo. Senior C.
 Ecke, Dodo Hobert, *a, w, sp*, Chicago. U. of Wisconsin.
 Egbert, Ivan, *s, a, w, sp*, Logan, Utah. Utah Agricultural C.
 Ehrlich, Maximilian Charles, *s*, Chicago. U. of Illinois.
 Elder, James Clyde, *s, a, w*, Tarkio, Mo. S.B. (Tarkio C.) '05.
 Eldridge, Charles Judson, *s, a, w, sp*, Topeka, Kan. S.B. '16.
 Etshokin, Samuel, *s*, Kewanee. Senior C.
 Eymundson, Kristbjorn Sigurdur, *a, w, sp*, Pembina, N.D. A.B. (Gustavus
 Adolphus C.) '16.
 Feuerstein, Fred, *a, w, sp*, Chicago. Senior C.
 Fink, Harry William, *w, sp*, Chicago. Senior C.
 Finkelstine, Belle, *s, a, w, sp*, Chicago. S.B. '16.
 Finney, Clarence Eddie McClenahan, *s*, Pittsburgh, Pa. S.B. (Westminster C.)
 '11.
 Fischer, Walter R., *s*, Chicago. U. of Illinois.
 Fister, George M., *s*, Logan, Utah. S.B. (Utah Agricultural C.) '12.
 Flaten, Amon Peter, *s*, Edinburg, N.D. U. of North Dakota.
 Foley, Edmund Francis, *sp*, Chicago. Senior C.
 Foord, Alvin George, *a, w*, Murray, Utah. S.B. '16.
 Frazer, Eva, *s*, Eugene, Ore. A.B. (U. of Oregon) '12.
 Fujimaki, Samuel Yoshitomo, *sp*, Seattle, Wash. Senior C.
 Gabler, Anthony Jacob, *s, a, w*, Chicago. Senior C.
 Gallagher, William John, *a, w, sp*, Chicago. Valparaiso U.
 Galliher, Royal Vaska, *s*, Fairchild, Iowa. S.B. (Parsons C.) '15.
 Galloway, Charles Edwin, *s, a, w, sp*, Xenia, Ohio. Senior C.
 Gamble, Richard Cotter, *a, w, sp*, Chicago. Senior C.
 Garlock, DeWitt, *a, w, sp*, Wells, Minn. U. of Minnesota.
 Garner, Jay McKinley, *sp*, Wichita, Kan. S.B. '16.
 Gernon, John Henry, *a, w, sp*, Kankakee. Senior C.
 Go Kee, Francisco, *s*, Manila, P.I. S.B. '16.
 Graber, Benjamin Peter, *sp*, Freeman, S.D. Senior C.
 Grady, Grover Quintin, *s*, Alden, Kan. U. of Kansas.
 Graham, Robert Hugh, *s, a, w, sp*, Monmouth. S.B. (Monmouth C.) '15.
 Graven, Philip Siguard, *a, w, sp*, St. Paul, Minn. Senior C.

- Graves, Ethan Allen, *w*, New Waverly, Ind. Senior C.
Greenstein, Max A., *sp*, Chicago. Senior C.
Grey, Anna Barbara, *a, w, sp*, Evanston. Denison U.
Grogan, Robert Earl, *a, w, sp*, Dallas, Tex. A.B. (Baylor U.) '16.
Groom, Horace Ensign, *s, a, w*, Kennewick, Wash. A.B. (Morningside C.) '07.
Grossman, Harry Dewey, *sp*, Chicago. Senior C.
Gumbiner, Benjamin Franklin, *a, w, sp*, Belle Plaine, Iowa. Senior C.
Halenbeck, Philip Luther, *a, w*, Duluth, Minn. U. of Minnesota.
Hammond, Aldace Walker, *a, w, sp*, Grinnell, Iowa. S.B. (Grinnell C.) '15.
Hancock, Elmer Russell, *w*, Emerado, N.D. A.B. (U. of North Dakota) '16.
Hantsch, Ferdinand, *a, w, sp*, Chicago. Normal C. of Austria.
Harper, Francis Donald, *sp*, Chicago. Senior C.
Hart, Walter Harry, *a, s, w*, Chicago. S.B. '16.
Hauser, Irma, *a, w, sp*, Chicago. S.B. '16.
Haynes, Stanley Hewitt, *s*, Minneapolis, Minn. S.B. (U. of Minnesota) '15.
Heaney, Francis Clifford, Jr., *s, a, w, sp*, Cedar Rapids, Iowa. Dartmouth C.
Heath, Faye Rachel, *a, w*, Stuart, Iowa. A.B. (Des Moines C.) '15; S.B. (*ibid.*) '16.
Heatherington, Jean Randolph, *a*, Bellaire, Ohio. Ohio State U.
Heck, Frank LeRoy, *s, w*, Chicago. A.B. (Wittenburg C.) '14.
Henderson, Harold Burrows, *s*, Montgomery, Pa. U. of Pennsylvania.
Hess, Gaylord Ray, *s*, Chicago. S.B. '14.
Heumann, Johanna, *s*, Chicago. S.B. '16.
Hibbert, George Fielding, *a, w, sp*, Chicago. Senior C.
Hibbs, William George, *a, w, sp*, Chicago. S.B. (Franklyn C.) '15.
Hixson, Charles Randle, *a, sp*, Aurora. Senior C.
Hofrichter, Cassius Howard, *s*, Cleveland, Ohio. S.B. (Hiram C.) '16.
Hofstra, Richard, *a, w, sp*, Chicago. Senior C.
Hogeboom, George Washington, *a, w, sp*, New Orleans, La. S.B. '16.
Hoover, Roy Michael, *s*, Roanoke, Va. A.B. (Bridgewater C.) '15.
Hough, Wyman George, *s*, Sibley, Iowa. U. of Wisconsin.
Houloose, James, *a, w, sp*, Kalamazoo, Mich. Kalamazoo C.
Hoyt, Lee Turner, *a, w*, Good Hope. Senior C.
Hubbard, John Clark, *a, w, sp*, Willard, Utah. Brigham Young U.
Huber, Harry Lee, *s, a, w, sp*, Mattoon. S.B. '13; S.M. '16.
Huckleberry, Evermont Robbins, *s, a, w, sp*, Graham, Tex. Baylor U.
Hunsberger, Harvey Samuel, *s*, Riverside, Cal. A.B. (Olivet C.) '09; A.M. (*ibid.*) '11.
Hunter, Alice Mary, *a, w*, Grand Forks, N.D. A.B. (U. of North Dakota) '14.
Huston, James Mallernee, *s, a*, Los Angeles, Cal. Leland Stanford Junior U.
Ingals, Mary Goodell, *a, w, sp*, Chicago. Senior C.
Inlow, William DePrez, *w*, Manilla, Ind. S.B. '15.
Isacovitch, Harry Julius, *a, w, sp*, Chicago. Senior C.
Ivy, Andrew Conway, *a, w, sp*, Cape Girardeau, Mo. S.B. '16.
Jackson, Sydney Charles, *a*, Madison, Wis. U. of Wisconsin.
Jacobson, LeRoy, *s*, Elkhorn, Wis. U. of Wisconsin.
Jeffrey, James Robinson, *s*, Mortonville, Kan. U. of Illinois.
Jensen, Louis Christian, *a*, Verdon, S.D. S.B. (Sioux Falls C.) '15; Pharm.B. (U. of Minnesota) '14.

- Jensen, Viggo Wilhelm, *a, w, sp*, Lakewood, Mich. A.B. (Illinois C.) '15.
 Jenson, Conrad Heber, *a, w, sp*, Bear River, Utah. Utah Agricultural C.
 Jeschke, Richard Hall, *a, w, sp*, Benton Harbor, Mich. Senior C.
 Johnson, Broer Rollo, *a, w, sp*, Cadillac, Mich. A.B. (Augustana C.) '15.
 Johnson, Orrin A., *w, sp*, Iron River, Mich. Senior C.
 Johnston, Florence D., *s*, Cedar Rapids, Iowa. S.B. (Coe C.) '15.
 Jones, Durward Roscoe, *a, w, sp*, Lacrosse, Ind. Northwestern U.
 Jones, Harold Oakland, *s*, Denison, Tex. A.B. (U. of Texas) '07.
 Jones, Lester Martin, *s*, Pickering, Mo. A.B. (Baker U.) '09; D.B. (Union Theological Sm.) '13; A.M. (Columbia U.) '13.
 Kahn, Julius, *a, w, sp*, Chicago. Senior C.
 Kaliski, Sidney Richard, *a, w, sp*, Chicago. U. of Texas.
 Kaplan, Emanuel Mandel, *a, w, sp*, Chicago. Senior C.
 Keir, Floyd Earl, *a, w, sp*, Elwood. U. of New Mexico.
 Kelly, Frank Brazill, *a, w, sp*, Joliet. Senior C.
 Kennedy, Berthold Stamps, *a*, Connersville, Tenn. S.B. '15.
 Kiel, Lee, *a, w, sp*, Sioux Center, Iowa. S.B. '16.
 King, Allan Bruce, *a, w, sp*, Chicago. Senior C.
 Knauer, Sophia Adeline, *a*, Naperville. Northwestern C.
 Knox, William Balmer, *s, a, w, sp*, Chicago. St. Cyril's C.
 Kostal, Frank, *a, sp*, Chicago. European Gymnasium.
 Kristensen, William Ambrosius, *a, w, sp*, Nestved, Denmark. Lewis Inst.
 Kruse, Walter Edward, *a*, Fort Wayne, Ind. Indiana U.
 Larson, Ernest Eric, *a, w, sp*, Scandia, Kan. S.B. '17.
 Laus, Clark John, *s*, Chicago. Senior C.
 Leggett, George Phelps, *a, w, sp*, Fairfield, Iowa. S.B. (Parsons C.) '14.
 Levey, Harry Barney, *a, w, sp*, Gary, Ind. A.B. (Indiana U.) '16.
 Levin, David, *s*, Chicago. S.B. '16.
 Levy, Julius, *sp*, Chicago. Senior C.
 Lewis, Jacob Kingsland, Jr., *w, sp*, Chicago. A.B. (Harvard) '11.
 Lieberthal, Eugene Paul, *a*, Chicago. Northwestern U.
 Loomis, Frank Chester, *sp*, Marcus, Iowa. Senior C.
 Lowe, Cecil Evan, *a, w, sp*, Severance, Kan. A.B. (Washburn C.) '13.
 Lyon, Will Ferson, *a*, Elkhorn, Wis. A.B. (Oberlin C.) '11.
 McCarthy, Earl Roach, *s, a, w, sp*, Spokane, Wash. Dartmouth C.
 McClure, Ernest Lucas, *a*, Fairfield, Iowa. Ph.B. (Parsons C.) '16.
 McCosh, Mac Emerson, *s*, Mt. Morris. Northwestern U.
 McCoy, Harold J., *s, a*, Imperial, Neb. Drake U.
 McDonald, Tony Mark, *a, w, sp*, Severy, Kan. S.B. '09.
 McKinley, Earl Baldwin, *a*, Wellington, Kan. U. of Michigan.
 McPherson, Andrew Frank, *s, a, w, sp*, Bellingham, Wash. U. of Washington.
 McVey, Clarence Alfred, *a, w, sp*, Bass, Ind. Senior C.
 Magaret, Clarence William, *a, w, sp*, Peoria. Bradley Polytechnic Inst.
 Manning, James Howard, *a, w, sp*, Bathgate, N.D. Hamline U.
 Marks, Julian Barnett, *a*, Oscoda, Mich. U. of Michigan.
 Marshall, Ellsworth Glensburn, *s*, Laketon, Ind. A.B. (U. of Indiana) '14.
 Matousek, Thomas Joseph, *a, w, sp*, Cicero. Senior C.
 Maurer, Siegfried, *sp*, Eugene, Ore. S.B. (Oregon Agricultural C.) '10.

- Meeker, William Raymond, *s, a, w, sp*, Hazel Dell. S.B. '15.
Menge, Edward John, *s*, Fond du Lac, Wis. A.B. (U. of Texas) '14; A.M. (*ibid.*) '15; Ph.D. (*ibid.*) '16.
Merriman, John Riley, *s*, Chicago. S.B. (U. of Illinois) '16.
Meyn, Arthur Wesly, *s, a, w, sp*, Chicago. Senior C.
Molander, Charles Oscar, *s*, Chicago. S.B. '14.
Morrow, John Calvin Weir, *s*, Grand Island, Neb. A.B. (Tarkio C.) '10.
Mulrow, Frederick William, *a, w*, Yates Center, Kan. A.B. (Baker U.) '11.
Murchie, John Talmadge, *s*, Tarkio, Mo. S.B. (Tarkio C.) '14.
Murray, Everett Elliot, *a, w, sp*, Winfield, Kan. Southwestern C.
Narland, Silas Clarence, *a, w, sp*, Radcliffe, Iowa. Senior C.
Nathanson, William, *a*, Chicago. C. of Physicians and Surgeons.
Naylor, Eugene Fay, *a, w, sp*, Murphysboro. Senior C.
Nellans, Charles Thomas, *w*, Chicago. S.B. '16.
Nelson, Karl Magnus, *a, w, sp*, Chicago. S.B. '17.
Newcomb, Frank Simon, *a, w*, Muskogee, Okla. Senior C.
Niblack, Henry Clay, *w, sp*, Marshfield, Mo. Senior C.
Nickelsen, William Donald, *a, w, sp*, Hood River, Ore. U. of Oregon.
Nienow, Alfred, *s, a, w, sp*, Northfield, Minn. S.B. (Carleton C.) '13.
Nisbet, Oliver Martin, *a, w, sp*, Genesee, Idaho. S.B. (U. of Idaho) '15.
Northrop, Charles A., *a, w, sp*, Kankakee. A.B. (Hillsdale C.) '13.
Numbers, Joseph Rens, Jr., *a, w, sp*, Boise, Idaho. U. of Idaho.
O'Bannon, Roscoe Paul, *a, w, sp*, Buffalo, Mo. Drury C.
Oberhelman, Harry Alvin, *a, w, sp*, Randolph, Kan. S.B. (Northwestern C.) '16.
O'Connor, Edward Bernard, *a, w, sp*, Tonawanda, N.Y. A.B. (Manhattan C.) '16; S.B. '16.
Oppenheimer, Leon Ingraham, *s, sp*, Spokane, Wash. A.B. (Leland Stanford Junior U.) '14.
Orth, Raymond Emerson, *a, w*, Walla Walla, Wash. S.B. (Whitman C.) '16.
O'Toole, Tom Francis, *a, w*, Independence, Iowa. Creighton C.
Owens, Kenneth Hunter, *w, sp*, Plainfield. Ph.B. (U. of Vermont) '13.
Parker, Leon Vasco, *s, a, w, sp*, Minot, N.D. A.B. (Bowdoin C.) '06.
Parmenter, Elbert Smith, *a, w, sp*, Morrison. Knox C.
Pearsall, Charles Roy, *a, w*, Port Byron. A.B. (Knox C.) '96.
Peters, Albert Grover, *s, a*, Gibson City. S.B. '16.
Phelps, Jessie, *sp*, Ypsilanti, Mich. S.B. (U. of Michigan) '94; S.M. (*ibid.*) '98.
Pittinger, Earl Alexander, *s*, Chicago. U. of Michigan.
Pond, Gilbert Palmer, *s, a, w, sp*, State College, Pa. S.B. (Pennsylvania State C.) '15.
Poppens, Peter Heihe, *s, a, w*, Tea, S.D. S.B. '17.
Portis, Bernard, *a, w, sp*, Chicago. Senior C.
Portogallo, Henry Salvatore, *s, a, w, sp*, Chicago. Lewis Inst.
Psota, Frank Joseph, *s, w, sp*, Chicago. Senior C.
Raile, Henry, *s, a, w, sp*, Provo, Utah. U. of Utah.
Rawlins, Harvey Francis, *s*, Winchester, Tenn. U. of Louisiana.
Rawlins, Ora Anson, *a, w, sp*, Aurora. A.B. (U. of Indiana) '01; A.M. (*ibid.*) '07; A.M. (Columbia U.) '14.
Reagan, Walter Freemont, *s*, Bridgeport, Ind. A.B. (DePauw U.) '10.

- Reed, Howard William, *a, w, Rhinelander, Wis.* U. of Michigan.
- Rees, Maurice Holmes, *s, a, w, sp, Tarkio, Mo.*
- Reeve, Roscoe Hulen, *a, w, sp, Edwardsport, Ind.* S.B. '17.
- Reilly, James Joseph, *s, Scranton, Pa.* U. of Toronto.
- Reynolds, Benjamin Johnson Chapman, *a, w, sp, Paducah, Ky.* Valparaiso U.
- Rich, Ciney, *a, w, sp, Birds.* Senior C.
- Rimmerman, Jacob Jay, *s, a, w, sp, Rock Island.* Augustana C.
- Rogers, Fred Terry, *s, Henderson, Ky.* A.B. (Baylor U.) '11; Ph.D. '16.
- Rosenheim, Ethel, *a, w, sp, Chicago.* S.B. '14.
- Rubinkam, Wynkoop Henry, *a, w, Chicago.* Senior C.
- Rudolph, Abraham Happy, *sp, Chicago.* Senior C.
- Rush, Harold Floyd, *w, sp, Girard, Kan.* Senior C.
- Russell, Cecil Kirke, *sp, Chicago.* Senior C.
- St. Germain, Albert Leo, *a, w, sp, Chicago.* Northwestern U.
- St. Pierre, Edward Walter, Jr., *s, Salem, Ore.* A.B. (Willamette U.) '12.
- Samuel, Jacob Herman, *s, Chicago.* Senior C.
- Sandock, Isadore, *a, w, sp, South Bend, Ind.* U. of Michigan.
- Sauer, Henry Charles, *s, Rutland.* Senior C.
- Schaller, Clarence H., *sp, Mendota.* Senior C.
- Scheffel, Yetta, *a, w, Chicago.* A.B. (Northwestern U.) '06; A.M. '07.
- Schlosser, Herbert Karl, *a, w, sp, Elkhart, Ind.* Valparaiso U.
- Schmidt, William Gustave, *s, Philadelphia, Pa.* S.B. (U. of Pennsylvania) '13.
- Schmitt, Edwin Christian, *s, Moundridge, Kan.* A.B. (U. of Kansas) '12; A.M. (*ibid.*) '13.
- Schultz, Carl Emil, *s, a, w, sp, Oak Park.* U. of Illinois.
- Serbin, William Benedict, *s, a, w, sp, Chicago.* Senior C.
- Severeide, Albert Larson, *a, w, sp, Sutherland, Iowa.* A.B. (Grinnell C.) '15.
- Shaffer, Earl William, *a, w, sp, Bridgeport.* S.B. (Illinois C.) '16.
- Sherman, Mandel, *sp, Chicago.* Senior C.
- Shumway, Howard Paine, Jr., *a, Wakefield, Neb.* A.B. (U. of Nebraska) '13; A.M. (*ibid.*) '15.
- Sigworth, Dwight Chace, *sp, Stanton, Neb.* S.B. (U. of Nebraska) '15.
- Simms, Bennett Thomas, *s, Corvallis, Ore.* Alabama Polytechnic Inst.
- Simonson, Irwin Dave, *a, w, sp, Buena Vista, Col.* U. of Colorado.
- Siwka, Isidore John, *s, Detroit, Mich.* Detroit C. of Medicine and Surgery.
- Smiley, William Allen, *a, w, sp, Grinnell, Iowa.* S.B. (Grinnell C.) '16.
- Smith, Arthur Wilson, *sp, Richmond, Ind.* Senior C.
- Smith, Carl Morris, *a, w, sp, Oklaunion, Tex.* A.B. (Baylor U.) '15.
- Smith, Clarence, *s, Lawrence, Kan.* A.B. (U. of Kansas) '15; A.M. (*ibid.*) '16.
- Smith, Edwin Jefferson, *a, w, sp, Chicago.* A.B. (Ripon C.) '14.
- Smith, Stuart Luthy, *s, w, Pittsfield.* U. of Illinois.
- Soper, Fred Lowe, *s, Hutchinson, Kan.* A.B. (U. of Kansas) '14; S.M. (*ibid.*) '16.
- Spalding, Maurice, *a, w, sp, Vincennes, Ind.* Senior C.
- Stanton, Robert Hitz, *a, sp, Madison, Ind.* Hanover C.
- Stapleton, Harvey Burr, *s, Omaha, Neb.* Creighton U.
- Stieglitz, Hedwig Jacobina, *s, a, w, sp, Chicago.* Senior C.
- Stone, Edward Jacob, *a, w, sp, Chicago.* Senior C.
- Stone, Merlin J., *a, w, sp, Ogden, Utah.* U. of Utah.

- Strause, Clifford Philip, *a, w, sp*, Peoria. Bradley Polytechnic Inst.
 Studer, Edward Franklin, *w, sp*, Chicago. Senior C.
 Sturges, Mary Mathews, *a, w, sp*, Winnetka. S.B. (U. of Michigan) '93; S.M. '96.
 Sutherland, George Fred, *s, a, w, sp*, Grand Island, Neb. A.B. (U. of Illinois) '13; A.M. (*ibid.*) '14.
 Sykes, Allen Lee, *sp*, Denton, Mont. Iowa State C.
 Taglia, Vito Antonio Desolato, *a, w, sp*, Chicago. Senior C.
 Tartar, Nicholas Linn, *a, w, sp*, Corvallis, Ore. Oregon Agricultural C.
 Thatcher, Harvey Shepard, *s*, Utica, Ohio. A.B. (Ohio State U.) '09.
 Theobald, John Joseph, *a, w, sp*, Chicago. Lewis Inst.
 Thompson, Kenneth Levi, *s*, West Point, Neb. U. of Nebraska.
 Thompson, Raymond Charles, *s, a, w*, Fayetteville, Ark. S.B. (Kansas State Agricultural C.) '08.
 Tong, Ming Sing, *a, w, sp*, Kiangau, China. S.B. (Kentucky Wesleyan U.) '15.
 Traut, Eugene Fagan, *a, w, sp*, Fond du Lac, Wis. Senior C.
 Tseo, Pang Yuen, *s*, Nanchang, Kiangsi, China. A.B. (U. of Michigan) '15.
 Tucker, Beatrice Edna, *a, w, sp*, Peoria. Bradley Polytechnic Inst.
 Van der Velde, Otto, *a, w, sp*, Phillipsburg, Kan. A.B. (Hope C.) '15.
 Veach, Oscar Lloyd, *s, a, w*, Helena, Mont. Northwestern U.
 Wagner, Louise Dorothy, *a, w, sp*, Chicago. Senior C.
 Waite, Gilbert Dillon, *s*, Portsmouth, Ohio. U. of Wisconsin.
 Waldo, Proctor Cook, *a, w, sp*, Peoria. Bradley Polytechnic Inst.
 Warden, Ralph Herbert, *a, w, sp*, Wilmore, Ky. S.B. '14; S.M. '15.
 Ware, Julian Vivian, *sp*, Chicago. U. of Wisconsin.
 Watts, Clyde Franklin, *a, w, sp*, Juliaetta, Idaho. S.B. (U. of Idaho) '13.
 Waygood, James Jamison, *s*, Glenside, Pa. Lafayette C.
 Weatherford, Harold Lorrane, *sp*, Chicago. A.B. (Leland Stanford Junior U.) '16.
 Weinberg, Abraham Joseph, *a, w, sp*, Chicago. Senior C.
 West, Roy Augustine, *s*, Anthony, Kan. S.B. (U. of Kansas).
 Whitaker, Sophie Turman, *sp*, Tampa, Fla. A.B. (C. of St. Elizabeth) '14.
 Whiteley, Philip Wade, *a, w, sp*, Bonaparte, Iowa. Iowa State C.
 Whitmire, Clarence Leonard, *s*, Waverly, Iowa. U. of Illinois.
 Wien, Max Samuel, *a, w, sp*, Chicago. S.B. '17.
 Wilcox, Harry Slater, *s*, Little Falls, N.Y. S.B. (Trinity C.) '08; A.M. (Harvard U.) '11.
 Williams, Chester Henry, *a, w, sp*, Ironwood, Mich. Carroll C.
 Williams, Delon Acree, *s*, Murray, Ky. S.B. '15.
 Williams, James Lisle, *s*, Chetopa, Kan. A.B. (U. of Kansas) '15; A.M. (*ibid.*) '16.
 Wills, Irving, *a, w, sp*, Watsonville, Cal. U. of California.
 Wilmoth, Clifford Lee, *a, w, sp*, Topeka, Kan. Monmouth C.
 Wilson, James Woodrow, *s*, Chicago. Northwestern U.
 Wimmer, Robert Norris, *sp*, Logansport, Ind. Senior C.
 Wolf, Elizabeth Pauline, *a, w, sp*, Indianapolis, Ind. Butler C.
 Wong, Henry Yun, *s, a, w, sp*, Kwangtung, China. A.B. '16.
 Woolfan, Emanuel Bertrand, *a, w, sp*, Hibbing, Minn. U. of Michigan.
 Zarosky, Henry James, *a, w, sp*, Chicago. Senior C.

SPECIAL STUDENTS TAKING MEDICAL COURSES

- Arentz, Elizabeth, *w, sp*, Joliet. U. of Illinois.
- Armstrong, Margaret Elizabeth, *sp*, Des Moines, Iowa. S.B. (Drake U.) '07; M.D. (*ibid.*) '10.
- Arnavson, Jon Skuta, *sp*, Winnipeg, Canada. A.B.
- Austin, William Clardy, *s*, Clinton, S.C. Presbyterian C. of South Carolina.
- Avner, Jules, *a*, Roxbury, Mass. McGill U.
- Barker, Myrtle Elizabeth, *a, w, sp*, Portage, Wis. Senior C.
- Behre, Elinor Helene, *w*, New Orleans, La. A.B. (Radcliffe C.) '08.
- Berry, Ernest Lee, *s*, Chicago. A.B. (Illinois C.) '13.
- Boucher, Samuel Doid, *s*, Lovejoy, Pa. Grove City (Pa.) C.
- Brandes, Leo, *w, sp*, Chicago. Senior C.
- Buchanan, Howard, *s, sp*, Monmouth. Monmouth C.
- Buchbinder, William, *w, sp*, Chicago. Senior C.
- Burns, Dean Carl, *w, sp*, Petoskey, Mich. Senior C.
- Cady, Kathryn Powell, *s*, Minneapolis, Minn. Mankato (Minn.) Normal S.
- Cady, Lawrence Hammond, *s*, Minneapolis, Minn. A.B. (U. of Minnesota) '14.
- Caldwell, George Thomas, *a, sp*, Columbus, Ohio. A.B. (Ohio State U.) '13; A.M. (*ibid.*) '13.
- Canine, Ralph Julian, *s*, East Chicago, Ind. S.B. (Northwestern U.) '16.
- Carey, Thomas Sheridan, *s*, Los Angeles, Cal. Leland Stanford Junior U.
- Carr, Eugene Morrison, *s*, Albuquerque, N.M. A.B. (U. of Pennsylvania) '13.
- Choate, Helen Ashhurst, *w*, Essex, Mass. A.B. (Smith C.) '04; A.M. (*ibid.*) '09.
- Clarke, Elton Russell, *s*, Indianapolis, Ind. A.B. (Butler C.) '15.
- Clayton, Edward Eastman, *w*, Chicago. S.B. (Ohio State U.) '16.
- Cope, Henry Ervin, *w, sp*, Chicago. S.B. '16.
- Coulter, Merle Crowe, *w*, Chicago. S.B. '14.
- Cryst, James Henry, *a*, East Ely, Nev. Senior C.
- Culbertson, James Bernard, *sp*, Shelby, Mo. A.B. (Central C.) '13.
- Davis, George William, *s*, Marshall, Mo. S.B. (Missouri Valley C.) '11.
- Denton, Minna Caroline, *w, sp*, Oak Park. S.B. (U. of Michigan) '00; A.M. (*ibid.*) '01.
- Donaldson, Arthur Norton, *s*, Loma Linda, Cal. C. of Medical Evangelists.
- Dye, Alma (Mr.), *s*, Basalt, Idaho. Brigham Young U.
- Ecker, Enrique Edwards, *a, sp*, Curacao, Dutch W.I. Dutch Agricultural C. of Holland.
- Ehrmann, Evelina Wilhelmina, *a, w, sp*, La Grange. Senior C.
- Eichenbaum, Bertha, *s*, Corning, Ohio. A.B. (Northwestern Reserve U.) '14.
- Eiss, Daniel Warrington, *s*, Chicago. Northwestern U.
- Elkins, Alfred John, *a*, Savannah, Ga. Atlanta U.
- Faust, Ernest Carroll, *s*, Champaign. A.B. (Oberlin C.) '12; AM. (U. of Illinois) '14.
- Fink, Emanuel Bernard, *w*, Chicago. S.B. '14.
- Fleugel, James Bush, *a*, Kalamazoo, Mich. Kalamazoo C.
- Fogelson, Samuel Julian, *sp*, Chicago. Junior C.
- Ford, Bert Thomas, *sp*, Salem, Ore. U. of Oregon.
- Ford, Carlotta Marks, *s*, Geneva. A.B. (U. of Illinois) '11.

- Fowler, Kenneth, *s*, Dallas, Tex. A.B. (Austin C.) '14.
 Frank, Elsie Margaret, *a, w*, Columbus, Ohio. S.B. (Ohio State U.) '14.
 Fraser, Henry Earl, *s*, Bowling Green, Ky. S.B. (Vanderbilt U.) '12; M.D. (*ibid.*) '15.
 French, Henry Sumner, *s*, Northfield, Minn. S.B. (Carleton C.) '15.
 Gaston, John Zell, Jr., *a, w, sp*, Houston, Tex. Senior C.
 Gidley, William Francis, *s*, W. La Fayette, Ind. S.B. (U. of Michigan) '08.
 Gifford, Sanford Robinson, *s*, Omaha, Neb. A.B. (Cornell U.) '13.
 Gill, John Joseph, *a*, Chicago. Northwestern S. of Pharmacy.
 Gilman, Joseph Charles, *s* Ripon, Wis. S.B. (U. of Wisconsin) '12; Ph.D. (Washington U.) '15.
 Gordon, John Everett, *a, sp*, Chicago. S.B. '16.
 Greisheimer, Esther Maud, *w, sp*, Chillicothe, Ohio. S.B. in Ed. (Ohio U.) '14; A.M. (Clark U.) '16.
 Grozin, Maurice, *s*, Cleveland, Ohio. Western Reserve U.
 Hall, Clark Homer, *s*, Amsterdam, Mo. U. of Missouri.
 Hancock, Virgil Kinney, *s*, Couperville, Wash. S.B. (U. of Washington) '16.
 Harper, Francis Donald, *sp*, Chicago. Senior C.
 Harrington, Frederick Butler, *s*, Shakopee, Minn. A.B. (Oberlin C.) '06; A.M. (U. of Minnesota) '11.
 Harris, David Earl, *a*, Lago, Idaho. Senior C.
 Harrison, Charles William, *s*, Loma Linda, Cal. C. of Medical Evangelists.
 Harsha, William Thomas, *a, w, sp*, Chicago. M.D. (Northwestern U.).
 Hayes, Margaret Anastatia, *w, sp*, Chicago. Senior C.
 Hill, Emory, *s*, Chicago. A.B. (Columbia U.) '04; M.D. (Medical C. of Virginia) '07.
 Holaday, Horace Asa, *s*, Moscow, Idaho. A.B. (U. of Colorado) '11.
 Hruby, Frank Edward, *sp*, Chicago. Junior C.
 Ingals, Ephraim Fletcher, Jr., *w*, Chicago. Senior C.
 Isenberger, Jerome C., *s*, Chicago. A.B. (Indiana U.) '10.
 Just, Ernest Everett, *s*, Washington, D.C. A.B. (Dartmouth C.) '07; Ph.D. '16.
 Kimball, Oliver Perry, *s*, London, Ohio. S.B. '14.
 Klebans, Sophia, *a, sp*, Chicago. Senior C.
 Klein, Samuel, *a*, Chicago. Senior C.
 Knapp, Carl William, *s*, Fulton, Mo. A.B. (U. of Iowa) '06.
 Kohman, Emma Anna, *w, sp*, Dillon, Kan. S.B. (U. of Kansas) '16.
 Kreamer, Laura E., *a*, Arkansas City, Kan. A.B. (U. of Kansas) '05.
 Kurk, Fred William, *a*, Louisville, Ky. S.B. (U. of Louisville) '15.
 Lambert, Fonsa Allan, *s*, Columbus, Ohio. Ohio State U.
 Lambird, Clifford David, *a*, Newton. Senior C.
 LaMer, Victor Kuhn, *s*, Leavenworth, Kan. A.B. (U. of Kansas) '15.
 Lashkowitz, Abe, *w, sp*, Chicago. Senior C.
 Lawson, Lawrence James, *sp*, Petersburg. Junior C.
 Leavell, Gladys, *s*, Chicago. A.B. (Illinois Woman's C.) '11; S.M. '13.
 Lederer, Francis L., *sp*, Chicago. Junior C.
 Lee, Charles Oren, *s*, Richmond, Va. S.B. in Pharm. (U. of Kansas) '13.
 Leeming, James Whitney, *a*, Chicago. Senior C.
 Lepke, Joseph Elmer, *a, w*, Anaconda, Mont. Senior C.

- Lerchi, Thorleif Iverson, *a, w*, Larwik, Norway. Dental C., U. of Illinois.
- Levy, Augustus, *s*, Geneva, N.Y. S.B. (U. of Pennsylvania) '09.
- Lieber, Conrad Hugo, *a*, Jamaica Plain, Mass. S.B. (Massachusetts Agricultural C.) '16.
- Lui, Sik Chew, *sp*, Honolulu, H.I. U. of Illinois.
- Lynch, Amos Livingston, *a*, Roopville, Ga. Morehouse C.
- Lynn, Frank Joseph, *s*, Chicago. De La Salle Inst.
- McArthur, Clifford Leslie, *s*, Fayetteville, Ark. S.B. (Oklahoma Agricultural and Mechanical C.) '11; S.M. (U. of Idaho) '12.
- McCann, Ezelle, *s*, Chicago. Mississippi C.
- McElroy, Clarence Hamilton, *s*, Stillwater, Okla. Oklahoma Agricultural and Mechanical C.
- McNeal, Alice, *w*, Chicago. Lewis Inst.
- Masterton, Edward Lincoln, *sp*, Chicago. Senior C.
- Matzel, Albert Joseph, *s*, St. Louis, Mo. St. Louis U. Academy.
- Maver, Mary Eugenia, *s*, Chicago. S.B. '14.
- Maxwell, Helen Dorothy, *a*, Omaha, Neb. Senior C.
- Miller, Francis Joseph, *s*, St. Marys, Kan. St. Marys C.
- Mitchell, Grant E., *s*, Chicago. Chicago C. of Osteopathy.
- Morgan, Anna Haven, *s*, New London, Conn. A.B. (Cornell U.) '06; Ph.D. (*ibid.*) '12.
- Morgan, Hugh Jackson, *s*, Nashville, Tenn. S.B. (Vanderbilt U.) '15.
- Moser, Rollin Henry, *sp*, Aurora. Northwestern C.
- Myers, John Tennyson, *s*, Eskridge, Kan. S.B. (Washburn C.) '11; S.M. (U. of Kansas) '12.
- Norman, Fred Edward, *s*, Pueblo, Col. U. of Iowa.
- Obenchain, Jeanette Brown, *w*, Chicago. Ph.B. '06.
- Olson, Ernst, *sp*, Chicago. Junior C.
- Pangburn, Edward Weddell, *s*, Elizabeth, Pa. U. of Pennsylvania.
- Patterson, George Hill, *sp*, Chicago. Junior C.
- Peet, Charles Emerson, *s*, Chicago. S.B. (U. of Wisconsin) '92.
- Phelps, Jessie, *s*, Ypsilanti, Mich. S.M. (U. of Michigan) '98.
- Pierce, Emma Ruth, *w*, Chicago. Senior C.
- Pok, Anthony John, *s*, Chicago. Northwestern U.
- Reed, Carlos Isaac, *s*, Columbus, Ohio. A.B. (Ohio State U.) '15.
- Reinertsen, Bernhard Reynold, *s*, Elk Point, S.D. A.B. (Agricultural C.) '14.
- Roberts, Edward Noel, *sp*, Wind River, Wyo. A.B. (U. of Oxford) '13.
- Roseboom, Benjamin Brokaw, Jr., *s*, East Lansing, Mich. S.B. (Hamilton C.) '08.
- Ross, Gilson, *w*, Delphos, Kan. Senior C.
- Ross, Vera, *a*, Pontiac. Randolph-Macon C.
- Ryerson, Susan Parker, *a, w, sp*, Chicago. S. for Social Workers, Boston.
- Salmonde, Herbert Francis, *s*, Westfield, Mass. Mass. Inst. of Tech.
- Schmitz, Henry Leuzen, *w*, Chicago. Senior C.
- Schott, John Edward, *sp*, Silver Creek, Neb. S.B., A.M. (U. of Nebraska) '14 and '15.
- Setzer, George Warren, *sp*, Aurora. Junior C.
- Sharp, William Bernard, *a*, Nashville, Tenn. A.B. (U. of the South) '10; S.M. '14.
- Sheaff, Howard Martin, *a, w, sp*, Hastings, Neb. A.B. (U. of Nebraska) '10.

- Sheldon, Paul Benedict, *a*, Webster Groves, St. Louis, Mo. Oberlin C.
 Shipley, Carl Vinnedge, *s*, Dayton, Ohio. Northwestern U.
 Sidell, Roscoe Roy, *s*, Joliet. Ph.B. (U. of Wooster) '08.
 Sihler, Charles Harold, *sp*, Litchfield. McGill U.
 Silverman, Maurice, Slutzk, Russia. Senior C.
 Simpson, John Nathan *s*, Morgantown, W. Va. A.B. (U. of Nashville) '93; M.D. (Johns Hopkins U.) '02.
 Smith, Clayton Sidney, *s*, Chicago. S.B. (Rutgers C.) '09; S.M. (*ibid.*) '12; Ph.D. (Columbia U.) '13.
 Smith, Walter Braman, *a, w*, Waukesha, Wis. A.B. (Carroll C.) '12.
 Starin, Louis Martin, *s*, Ames, Iowa. A.B. (U. of Kansas) '15.
 Stevenson, Louisa Sonté, *s*, Lowell, Mass. A.B. (Vassar C.) '01; Ph.D. (Cornell U.) '11.
 Stewart, Elvie Nathan, *w, sp*, Baldwin City, Kan. A.B. (Baker U.) '14.
 Stickel, Earl, *w*, Davenport, Iowa. Senior C.
 Stieglitz, Edward Julius, *a, w*, Chicago. Senior C.
 Sturgeon, William Elias, *s*, Waco, Tex. A.B. (Texas Christian U.) '07.
 Sullivan, Andrew Joseph, *a*, Chicago. Senior C.
 Sutherland, Arthur Howard, *s*, New Haven, Conn. A.B. (Grand Island C.) '99; Ph.D. '09.
 Taft, Clara Enola, *a, w*, Kennett Square, Pa. A.B. (Wellesley C.) '15.
 Tainter, Rolfe, *s*, Hawley, Minn. Northwestern U.
 Taylor, Miriam Wetmore, *s*, Grinnell, Iowa. A.B. (Grinnell C.) '14.
 Thompson, Richard Yoder, *s*, West Point, Neb. A.B. (U. of Nebraska) '16.
 Tratner, Abe Joseph, *w*, Chicago. Senior C.
 Trimble, Clara Eugenia, *s*, Chicago. A.B. (U. of Illinois) '04.
 Truesdell, Benjamin William, *s*, Wichita, Kan. Senior C.
 Victorson, Ruth Marie, *w*, Chicago. S.B. '16.
 Wakefield, Howard, *w, s*, Chicago. Senior C.
 Wago, Hinosuka, *s, a, w, sp*, Tokio, Japan. Tokio Medical C.
 Wanninger, Horace, *a*, Chicago. Senior C.
 Ware, Julian Vivian, *s*, Chicago. U. of Wisconsin.
 White, Dorothy Alberta, *a*, Akron, Ohio. Senior C.
 Wilkie, Margaret Donald Erskine, *w, sp*, Asheville, N.C. Kentucky State U.
 Willd, John Arthur, *a*, Hoffman, Minn. Senior C.
 Willds, Elmer Harrison, *s*, Mitchell, S.D. A.B. (Allegheny C.) '10.
 Worthing, Hugh Otis, *s*, Oakfield, Wis. A.B. (U. of Wisconsin) '15.
 Zentmire, Zelma, *s*, Ames, Iowa. S.B. (Iowa State C. of Agriculture) '11; S.M. (*ibid.*) '15.

MEN—127

WOMEN—34

TOTAL—161

JUNIORS

- Abraham, Edwin Dorsey, *s, a, w, sp*, Clifton, Ariz. S.B. '16.
 Algeo, Murla, *a, w*, Columbia, Mo. A.B. (U. of Missouri) '15.
 Allen, Isaac Walter, *a, w, sp*, Salt Lake City, Utah. A.B. (U. of Utah) '15.
 Austin, Florence Olive, *sp*, Mobile, Ala. S.B. '17.

- Balcar, Joseph, *w, sp*, Chicago. S.B. (Coe C.) '13.
- Bailey, Percival, *s*, Carbondale. S.B. '14.
- Bardenwerper, Hulburt Enos, *sp*, Milwaukee, Wis. Milwaukee State Normal Sch.
- Barnard, Hayden Emil Eberhardt, *sp*, Chicago. S.B. '17.
- Bell, Charles Curry, *a, w, sp*, Tonkawa, Okla. A.B. (U. of Oklahoma) '16.
- Birk, Benjamin Jaffee, *a, w, sp*, Michigan City, Ind. S.B. (U. of Indiana) '16.
- Bjorgo, Carl Walther, *a, w, sp*, Red Wing, Minn. A.B. (Luther C.) '07.
- Bonar, Barnett Edward, *a, w, sp*, Madison, Wis. S.B. (U. of Wisconsin) '16.
- Bowler, Vincent Brendon, *sp*, Chicago. S.B. '17.
- Brindley, Roy, *a, w, sp*, Boscobel, Wis. U. of Wisconsin.
- Browne, Howard Storm, *s* Norman, Okla. U. of Oklahoma.
- Buis, Albertus H., *a, w, sp*, Hickman, Neb. U. of Nebraska.
- Burcky, Frederic W., *a, w, sp*, Chicago. S.B. '16.
- Butler, Craig Dunn, *a, w, sp*, Aledo. S.B. (Earlham C.) '14.
- Caldwell, George Thomas, *w*, Columbus, Ohio. A.B. (Ohio State U.) '10; A.M. (*ibid.*) '13.
- Callander, Russell John, *a, w, sp*, Delaware, Ohio. S.B. '15.
- Campione, Nicholas Louis, *sp*, Chicago. S.B. '17.
- Cariño, José Maria, *sp*, Bagnio, P.I. S.B. '17.
- Carlsson, Edward Samuel, *a, w, sp*, Lindsborg, Kan. A.B. (Bethany C.) '12.
- Caylor, Harold Delos, *a, w, sp*, Danville, Ind. S.B. '16.
- Chimene, Eugene Opet, *a, w, sp*, Houston, Tex. A.B. '16.
- Christensen, Herbert Harvey, *a, w, sp*, Jamestown, Kan. A.B. (Ottawa U.) '14.
- Clecak, Nicholas Jeffries, *sp*, Oakland, Cal. S.B. '16.
- Cohen, Joseph Kaiser, *a, w, sp*, Chicago. Senior C.
- Coldren, Cassius Milo, *a, w, sp*, Milford, Iowa. S.B. '16.
- Cole, Marion Ousley, *a, w, sp*, Elburn. S.B. '16.
- Davis, Ethel Mildred, *a, w, sp*, Chicago. S.B. '16.
- Dismond, Binga, *a, sp*, Chicago. S.B. '17.
- Doll, Frank Rolla, *s, a, w, sp*, Chicago. Senior C.
- Duiker, Henry, *s*, Grand Rapids, Mich. A.B. (Hope C.) '15.
- Dundon, John Richard, *a, w, sp*, Ishpeming, Mich. Litt.B. (Notre Dame U.) '14.
- Elder, James Clyde, *sp*, Tarkio, Mo. S.B. (Tarkio C.) '05.
- Ellis, George Curtis, *a, w, sp*, Altamont. A.B. (U. of Illinois) '14.
- Estabrook, Dwight Goddard, *a, w, sp*, Dayton, Ohio. A.B. (U. of Michigan) '16.
- Estrem, Theodore Adolph, *a, w, sp*, Petersburg, Neb. S.B. (U. of Missouri) '16.
- Finnerud, Clark Wylie, *a, w, sp*, Watertown, S.D. S.B. (U. of Wisconsin) '16.
- Finney, Clarence Eddie McClenahan, *a, w, sp*, Pittsburgh, Pa. S.B. (Westminster C.) '11.
- Fister, George M., *s, a, w, sp*, Logan, Utah. S.B. (Utah Agricultural C.) '12.
- Flaten, Amon Peter, *a, w, sp*, Edinburg, N.D. U. of North Dakota.
- Flinn, Brainerd Pease, *a, w, sp*, Redwood Falls, Minn. S.B. '15.
- Foord, Alvin George, *sp*, Murray, Utah. S.B. '16.
- Fowler, Kenneth, *a, w, sp*, Dallas, Tex. A.B. (Austin C.) '14.
- Gleason, Archie Leland, *a, w, sp*, Glenville, Minn. S.B. '16.
- Go Kee, Francisco, *a, w, sp*, Manila, P.I. S.B. '16.
- Grady, Grover Quintin, *a, w, sp*, Alden, Kan. U. of Kansas.

- Groom, Horace Ensign, *w, sp*, Kennewick, Wash. A.B. (Morningside C.) '07.
Hammond, Aldace Walker, *sp*, Grinnell, Iowa. S.B. (Grinnell C.) '15.
Heck, Frank LeRoy, *a, w, sp*, Chicago. A.B. (Wittenberg C.) '14.
Henken, Jacob Frank, *a, w, sp*, Racine, Wis. S.B. (U. of Wisconsin) '16.
Hess, Gaylord Ray, *a, w, sp*, Chicago. S.B. '14.
Heumann, Johanna, *a, w, sp*, Chicago. S.B. '16.
Holderman, Jacob William, *a, w, sp*, Hutsonville. A.B. (DePauw U.) '09.
Holenbeck, Philip Luther, *sp*, Duluth, Minn. U. of Minn.
Holmblad, Edward Charles, *a, w, sp*, Aurora. Lake Forest U.
Horwitz, Jacob, *a, w, sp*, Milwaukee, Wis. S.B. (U. of Wisconsin) '16.
Hough, Wyman George, *a, w, sp*, Sibley, Iowa. U. of Wisconsin.
Hunsberger, Harvey Samuel, *a, w, sp*, Riverside, Cal. A.B. (Olivet C.) '09;
A.M. (*ibid.*) '11.
Hunter, Alice Mary, *a*, Grand Forks, N.D. A.B. (U. of North Dakota) '14.
Jacobson, LeRoy, *a, w, sp*, Elkhorn, Wis. U. of Wisconsin.
Johnson, Russell C., *s, a, w, sp*, Oakland, Neb. Senior C.
Johnson, Willis Leslie, *a, w, sp*, Aberdeen, S.D. A.B. (U. of South Dakota) '15.
Kading, Earl Christian, *a, w, sp*, Deer Lodge, Mont. A.B. (U. of Wisconsin) '16.
Kaplan, David, *a, w, sp*, Laporte, Ind. S.B. '16.
Kemper, Malcom, *w, sp*, Cincinnati, Ohio. S.B. '16.
Kerrigan, Robert Lee, *a, w, sp*, Michigan City, Ind. S.B. (Purdue U.) '12;
S.B. '16.
Kilgore, Allen, Chicago, *a, w, sp*, A.B. (DePauw U.) '12.
Laus, Clark John, *a, w, sp*, Oshkosh, Wis. Senior C.
Laval, John, *a, sp*, Evansville, Ind. S.B. '16.
Levin, David, *a, w, sp*, Chicago. S.B. '16.
Levin, Isador Michael, *a, w, sp*, Chicago. S.B. '16.
Levy, David Mordecai, *a, w, sp*, Scranton, Pa. A.B. (Harvard U.) '14.
Lewis, Marian, *a, w, sp*, Milwaukee, Wis. A.B. (U. of Wisconsin) '13.
Lommen, Peter Arnold, *a, sp*, Vermilion, S.D. A.B. (U. of South Dakota) '13;
A.M. (*ibid.*) '16.
Lundquist, Carl Gilbert, *s, a, w, sp*, Wetonka, S.D. A.B. (U. of South Dakota)
'16.
MacDonald, Hugh, *a, w, sp*, Peoria. S.B. '16.
McDougall, Andrew Storar, *a, w, sp*, West Hope, N.D. A.B. (U. of North
Dakota) '16.
McKenzie, Pierce, *a, w, sp*, Elwood, Iowa. S.B. '16.
Maddux, Walter Henry, *a*, Kansas City, Kan. A.B. (U. of Kansas) '14.
Mattill, Peter Milton, *a, w, sp*, St. Joseph, Mo. S.B. (Northwestern C.) '12.
Mehlig, Lee Percy, *a, sp*, Madison, Wis. A.M. (U. of Wisconsin) '16.
Merriman, John Riley, *a, w, sp*, Chicago. S.B. (U. of Illinois) '16.
Merriman, Lloyd Lewis, *s, a, w, sp*, Brookings, S.D. S.B. (Huron C.) '15.
Miller, Charles Phillip, *a, w, sp*, Oak Park. Senior C.
Miller, Max Mayo, *s*, Mound City, Mo. A.B. (U. of Missouri) '15; Ph.D.
Mills, George Winnegar, *a, w*, Wall, S.D. A.B. (U. of South Dakota) '16.
Mohr, George Joseph, *a, w, sp*, Seattle, Wash. S.B. '16.
Moody, Willson Bridges, *a, w, sp*, Evanston. A.B. (Williams C.) '14.
Mumma, Claude S., *a, w, sp*, Forrester. S.B. '16.

- Myers, Merrill Maitland, *sp*, Glenwood, Iowa. S.B. (Des Moines C.) '13.
- Nellans, Charles Thomas, *a, w, sp*, Chicago. S.B. '16.
- Noonan, James J., *a, w, sp*, Joliet. S.B. '16.
- Olson, Carl Theodore, *a, w, sp*, Chicago. S.B. '16.
- Oppenheimer, Leon Ingraham, *a, w*, Spokane, Wash. A.B. (Leland Stanford Junior U.) '14.
- Orlov, Henry Louis, *a, w, sp*, Chicago. S.B. '16.
- O'Toole, Tom Francis, *sp*, Independence, Iowa. Creighton C.
- Paine, Norman Carr, *a, w, sp*, Chicago. S.B. '13.
- Patton, Halford E., *s, a, w, sp*, Chicago. S.B. '16.
- Paulson, Paul Arthur, *a, w, sp*, Dell Rapids, S.D. B.A. (U. of South Dakota) '16.
- Pearsall, Clifford J., *a, w, sp*, Evansville, Wis. S.B. (Beloit C.) '14.
- Peters, Albert Grover, *w, sp*, Gibson City. S.B. '16.
- Poppens, Peter Heije, *sp*, Tea, S.D. S.B. '17.
- Portis, Sidney A., *a, w, sp*, Chicago. S.B. '15.
- Pottorf, Joseph Leon, *a, w, sp*, Nevada, Mo. S.B. (U. of Missouri) '16.
- Powers, Henry Robert, *a, sp*, Emmetsburg, Iowa. A.B. (U. of Iowa) '15.
- Rapp, Edwin Wallace, *a, w, sp*, Aurora. S.B. (U. of Illinois) '16.
- Rogers, Malcolm F., *a, sp*, Oconomowoc, Wis. A.B. (Columbia U.) '14.
- Sauer, Henry C., *a, w, sp*, Rutland. S.B. '16.
- Schlomovitz, Benjamin H., *a, w, sp*, Iowa City, Iowa. S.B. (U. of Iowa) '14; S.M. (U. of Wisconsin) '15.
- Schlossman, Bernard, *a, w, sp*, Waukesha, Wis. S.B. (U. of Wisconsin) '16.
- Schmitt, Edwin C., *s, a, w, sp*, Moundridge, Kan. A.M. (U. of Kansas) '13.
- Schuster, Franklin P., *a, w, sp*, El Paso, Tex. S.B. '16.
- Severeide, Albert Larson, *sp*, Sutherland, Iowa. S.B. (Grinnell C.) '15.
- Simpkin, John Mark, *a, w, sp*, Salt Lake City, Utah. S.B. '16.
- Smith, George, *a, w, sp*, Hoople, N.D. A.B. (U. of North Dakota) '16.
- Smith, Stuart Luthy, *a, w, sp*, Pittsfield. U. of Illinois.
- Sneeberger, William Alvin, *s, a, w, sp*, Racine, Wis. U. of Wisconsin.
- Stangl, Fred H., *s, a, w, sp*, St. Cloud, Minn. S.B. '16.
- Stevenson, Frank Woodford, *a, w, sp*, Crosby, Minn. A.B. (U. of North Dakota) '16.
- Taylor, Charles Fletcher, *a, w, sp*, Chicago. S.B. '16.
- Teninga, Arthur, *s, a, w, sp*, Chicago. S.B. '16.
- Thomas, Clyde Samuel, *a, w, sp*, Lincoln, Neb. A.B. (U. of Nebraska) '16.
- Thompson, John Clark, *a, w, sp*, Sutton, Neb. S.B. '16.
- Tihen, Henry Nelson, *a, w, sp*, Andale, Kan. S.B. (U. of Kansas) '16.
- Tomhagen, Edith, *a, w*, Chicago. A.B. (U. of Wisconsin) '16.
- Tseo, Pang Yuen, *a, w, sp*, Nanchang, China. A.B. (U. of Michigan) '15.
- Unruh, Benjamin H., *a, w, sp*, Avon, S.D. A.B. (U. of South Dakota) '16.
- Veach, Oscar Lloyd, *a, w, sp*, Helena, Mont. Senior C.
- Verbryck, George Garrison, *a, w, sp*, Salt Lake City, Utah. S.B. (U. of Utah) '15.
- Waite, Gilbert Dillon, *a, w, sp*, Portsmouth, Ohio. U. of Wisconsin.
- Watts, Charles Edward, *s, w, sp*, Juliaetta, Idaho. S.B. (U. of Idaho) '13.
- Wegge, Charles Edward, *a, w, sp*, Milwaukee, Wis. S.B. '16.

Weishaar, Herman Oliver, *s, a, w, sp*, Heyworth. S.B. '16.
 West, Ray A., *a, w, sp*, Anthony, Kan. S.B. (U. of Kansas) '16.
 White, Willard D., *a, w, sp*, Seattle, Wash. S.B. '15.
 Williams, Delon A., *sp*, Murray, Ky. U. of Kentucky.

MEN—131

WOMEN—8

TOTAL—139

SENIORS

Acker, Wesley Harrison, *s, a, w, sp*, Canon City, Colo. S.B. '14.
 Anderson, George Herman, *s, a, w, sp*, Laporte, Ind. S.B. (U. of Wisconsin) '15.
 Arkin, Harry Samuel, *s, a, w, sp*, Chicago. S.B. (U. of Chicago) '14.
 Arnold, James Eddy, *s, a, w*, Miles City, Mont.
 Baker, Earl Elias, *s, a, w, sp*, Havelock, Neb. S.B. (U. of Nebraska) '15.
 Beard, Hallard, *a, w, sp*, Chicago. S.B. '15.
 Billik, Cyril Danilovitch, *s, a*, Valney, Russia. Ph.B.
 Blachly, Lucile Spire, *s, a*, Norman, Okla. S.B. (U. of Oklahoma) '13.
 Bothman, Louis, *s, a, w, sp*, Murphysboro. S.B. '15.
 Bower, Albert Gordon, *s, a*, Salt Lake City, Utah.
 Braafladt, Louis Henry, *s*, Bellview, Minn. A.B. (Luther C.).
 Bristow, Arthur Shaw, *a, w, sp*, Princeton, Mo. U. of Missouri.
 Bull, Leland, *a, w, sp*, Ellensburg, Wash. S.B. '15.
 Butler, William Joseph, *s, a, w, sp*, Chicago. U. of Chicago.
 Carrico, Maurice Leola, *s*, Ashmore. Millikin U.
 Chivers, Joseph Hardy, *s, a, w*, Helena, Mont. S.B. '15.
 Choisser, Roger Morrison, *w, sp*, Harrisburg, Ill. S.B. '15.
 Christoffersen, Olaf Harry, *s, a, w, sp*, Tacoma, Wash. S.B. '15.
 Clawson, Benjamin J., *s, a, w, sp*, Lawrence, Kan. A.M. (U. of Kansas) '11.
 Cochran, George Acton, *s, a, w, sp*, Salt Lake City, Utah. A.B. (U. of Utah) '15.
 Colbert, Fred James, *s, a, w*, Weeping Water, Neb. A.B. (U. of Nebraska) '13.
 Cooper, Homer Percival, *a, w, sp*, Birmingham, Ala. A.B. (Fish U.) '11.
 Critchlow, Maurice Martin, *a, w, sp*, Salt Lake City, Utah. A.B. (Princeton U.) '01.
 Davies, Raymond Evan, *s, a, w, sp*, Bennet. A.B. (U. of Illinois) '14.
 Davies, William W., *sp*, Chicago. S.B. (Ohio Wesleyan) '12.
 Dilley, Harry Horace, *a, w, sp*, Des Moines, Iowa. Drake U.
 Dollahan, Martin Leland, *s, a, w, sp*, Lawrenceville. S.B. (Eastern Illinois State Normal).
 Doty, Flavia May, *s*, Chicago. S.B. '10.
 Doyle, John Benedict, *a, w, sp*, St. Paul, Minn. S.B. (U. of Minnesota) '07.
 Duner, Clarence Swan, *s, a, w, sp*, Chicago. S.B. '13.
 Eames, Earl, *s, a, w, sp*, Manan, Idaho.
 Ebert, Michael H., *a, w, sp*, St. Paul, Minn. A.B. (U. of Minnesota) '07.
 Edson, Henry Scammon, *s, a, w, sp*, Grinnell, Iowa. S.B. (Grinnell C.) '13.
 Elliott, Russell, *s, a, w*, Lawrence, Kan. A.B. (U. of Kansas) '14.
 Farman, George Franklin, *s, a, w, sp*, Lincoln, Neb. A.B. (U. of Nebraska) '16.
 Flynn, Michael Henry, *s, a, w, sp*, Hartford, Wis. A.B. (U. of Wisconsin) '09.
 Fogo, Hugh, *s, a, w, sp*, Gillingham, Wis. Carroll C.
 Foran, Francis Leo, *s, a, w, sp*, Worcester, Mass. A.B. (Holy Cross C.) '13.

- Frazer, Eva, *a, w, sp*, Eugene, Ore. A.B. (U. of Oregon) '12.
 French, Valiant Dee, *s, a*, St. Joseph, Mo. S.B. (Drake U.) '14.
 Fuqua, Samuel Agee, *a, w, sp*, Chicago. U. of Missouri.
 Gatterdam, Eugene Alfred, Jr., *a, w, sp*, LaCrosse, Wis. U. of Wisconsin.
 Gebhardt, Harry Clifford, *s, a*, Galesburg. S.B. (Knox C.) '11.
 Gieseler, Rudolph Jacob, *a, w, sp*, Racine, Wis. S.B. (U. of Wisconsin) '15.
 Gray, George Alexander, *a, w, sp*, Chicago. S.B. '15.
 Grichter, Benjamin Berl, *s, a, w, sp*, Chicago. U. of Chicago.
 Guy, Spencer Dewitt, *a, w, sp*, Coloma, Mich. S.B. (U. of Michigan) '15.
 Hager, Benjamin Harry, *s, a, w, sp*, Los Angeles, Cal. S.B. '15.
 Hancock, Elmer Russell, *s, a, w, sp*, Emerado, N.D. A.B. (U. of North Dakota) '16.
 Hardt, Leo Louis, *s, a, w*, Chicago. M.S. '15.
 Harrington, Ethel R., *s, a, w*, Chicago. S.B. '12.
 Harrington, Kathleen R., *s, a, w, sp*, Chicago. S.B. (St. Xavier's A.).
 Hedges, Robert, *a, w, sp*, Neenah, Wis. B.S. (U. of Wisconsin) '15.
 Heise, Herman Alfred, *s, a, w, sp*, Milwaukee, Wis. A.B. (U. of Wisconsin) '13.
 Henry, William John, *a, w, sp*, Chester, S.C. A.B. (Erskine C.) '12.
 Hicks, Clarence John, Jr., *s, a, w, sp*, Chicago. S.M. (Columbia U.).
 Houston, Frances, *s, a*, Whitefish, Mont. S.B. '14.
 Inlow, William DePrez, *s, a, w, sp*, Manilla, Ind. S.B. '15.
 Ireland, Jay, *s, a, w, sp*, Bridgeport. S.B. '15.
 Johnson, Henry Curtis, *a, w, sp*, Iola, Wis. S.B. '15.
 Jones, Harold Oakland, *s, a, w, sp*, Denison, Tex. A.B. (U. of Texas) '07.
 Joranson, Yngve, *s, a, w, sp*, Rock Island. A.B. (Augustana C.) '01.
 Kanter, Aaron Elias, *s, a, w*, Chicago. S.M. '15.
 Keener, Harry A., *a, w, sp*, Grinnell, Iowa. S.B. (Grinnell C.) '13.
 Kelman, Sarah R., *s, a, w, sp*, Wallingford, Conn. A.B. (U. of Missouri) '15.
 Kennedy, Berthold Stamps, *a, w, sp*, Cornersville, Tenn. S.B. '15.
 Kepner, Raymond Brandt, *a, w, sp*, Havelock, Neb. S.B. (U. of Nebraska) '15.
 Kulvinsky, Max, *s, a*, Chicago. S.B. '14.
 Kwauk, Zang Yien, *s, a, w, sp*, Canton, China. S.B. (U. of California) '14.
 Lahners, Thomas, *s, a, w, sp*, Belvidere, Neb. S.B. (U. of Nebraska) '13.
 Lebensohn, James Eleazar, *s, a, w, sp*, Chicago. S.B. '15.
 Lee, Henry Melvin, *a, w, sp*, Decorah, Iowa. A.B. (St. Olaf's C.) '13.
 Levinson, Yale Norman, *s, a, w, sp*, Kansas City, Mo. A.B. (U. of Kansas) '15.
 Lewis, Julian Herman, *s, a, w*, Cairo. A.B. (U. of Illinois) '11; A.M. (*ibid.*) '12.
 Lindsay, Warren Leroy, *s, a, w, sp*, Salt Lake City, Utah. S.B. (U. of Utah) '15.
 Lyon, Will Ferson, *a, w, sp*, Elkhorn, Wis. A.B. (Oberlin C.) '11.
 McCarthy, Patrick Thomas, *s, a, w, sp*, Anaconda, Mont. S.B. '14.
 McGill, Ernest Charles, *a, w, sp*, Superior, Wis. S.B. (U. of Wisconsin) '15.
 Maitland, Leslie MacKenzie, *a, w, sp*, Chicago. S.B. (Michigan C. of Mines) '05.
 Margolis, David Jacob, *s, a, w, sp*, Chicago. S.B. (U. of C. and Harvard U.).
 Martin, Harry Paul, *s, a*.
 Mayer, Katherine Martha, *w, sp*, Chicago. S.B. '11.
 Mayfield, Alfred Lisle, *a, w, sp*, Madison, Wis. S.B. (U. of Wisconsin) '15.
 Meyer, Herman Charles, *a, w, sp*, Oshkosh, Wis. S.B. (U. of Wisconsin) '15.
 Mielke, Edward Frank, *s, a, w, sp*, Shawano, Wis. S.B. (U. of Wisconsin) '15.

- Molander, Charles Oscar, *s, a, w, sp*, Chicago. U. of Chicago.
- Moncrieff, William Franklin, *s, a, w, sp*, Nashville, Tenn. M.S. (Vanderbilt U.) '13.
- Moorhead, Louis David, *s, a, w, sp*, Chicago. S.B. '14; S.M. '15.
- Murphy, Lyman Clements, *s, a, w*, Chicago. A.B. (Johns Hopkins U.) '12.
- Nause, Fred August, *s, a, w, sp*, Sheboygan, Wis. S.B. (U. of Wisconsin) '15.
- Neal, Paul Rexford, *s, a, w, sp*, Glascoe, Kan. A.B. (U. of Kansas) '15.
- Nelson, Carl Ferdinand, *s, a, w, sp*, Rockford, Ill. A.M. (U. of Wisconsin).
- *Nelson, Webster, *a, w, sp*, Canton, S.D. U. of South Dakota.
- Nesbit, Wellwood Mac, *s, a, w, sp*, Waterloo, Iowa. S.B. (U. of Iowa).
- Nugen, Dorcie Ray, *s, a, w*, Auburn, Ind.
- O'Connor, Vincent John, *a*, Ottawa. S.B. (U. of Michigan) '15.
- O'Rourke, Donald Hunter, *s, a, w, sp*, Fort Wayne, Ind. S.B. (U. of Michigan) '15.
- Ortmayer, Marie G., *a, w, sp*, Chicago. Ph.B. '06.
- Patrick, Florence Margaret, *s, a, w, sp*, Oak Park. B.S. '14.
- Pearlman, Samuel James, Jr., *s, a, w, sp*, Chicago. M.S. '16.
- Perry, Eugene Beauharnais, *s, a, w, sp*, Chicago. S.B. '16.
- Powell, Clifford Spencer, *s, a, w, sp*, Grinnell, Iowa. S.B. (Grinnell C.) '13.
- Rambo, Eli Francisco, *s, a, w*, West Bend, Iowa. S.B. (U. of South Dakota) '14.
- Robins, Charles Armington, *s, a, w, sp*, Rocky Ford, Col. A.B. (William Jewell C.) '07.
- Rogers, Maurice P., *s*, Oak Park. S.B. '15.
- Rogne, Conrad Oliver, *s*, Sturgeon Bay, Wis. A.B. (St. Olaf's C.) '12.
- Ross, Vergil A., *s, a, w, sp*, Rossburg, Ohio. S.B. (U. of Chicago) '15.
- Schlegel, Edward Henry, *a, w, sp*, Ft. Wayne, Ind. S.B. '15.
- Schuster, Stephen Alexander, *s, a*, El Paso, Tex. S.B. '15.
- Scott, Kate Frances, *a, w, sp*, Marengo. Ph.B. (U. of Wooster) '12.
- Shacoff, Henry, *a, w, sp*, Milwaukee, Wis. S.B. (U. of Wisconsin) '15.
- Shafer, Bertha Meserve, *s, a, w*, Salt Lake City, Utah. A.B. (U. of Utah) '14.
- Shafer, Leland Charles, *s, a, w*, Salt Lake City, Utah. A.B. (U. of Utah) '14.
- Shapere, Abraham Dudley, *a, w, sp*, St. Paul, Minn. S.B. '15.
- Sherman, Borris Judson, *s, a, w, sp*, Chicago. S.B. '16.
- Sherman, Maurice James, *s, a, w, sp*, Chicago. S.B. '16.
- Sigworth, Dwight Chace, *s, a, w, sp*, Stanton, Neb. S.B. (U. of Nebraska) '15.
- Silver, Maurice J., *s*, New York City. S.B. (Iowa State U.) '15.
- Sloan, Leroy Hendrick, *s, a, w, sp*, Chicago. S.B. '14.
- Slobe, Frederick William, *a, w, sp*, Orange City, Iowa. B.S. (U. of Iowa) '15.
- Smedal, Eilef A., *s*, La Crosse, Wis. A.B. (Christiana U.) '10.
- Smith, Josephine Elizabeth, *a, w, sp*, Lawson, Mo. A.B. (Central C. for Women) '12.
- Solem, George Oliver, *s, a, w, sp*, Elk Point, S.D. M.A. (U. of South Dakota) '15.
- Stam, Nicholas Cornelius, *a, w, sp*, Chicago. S.B. '15.
- Steinberg, Moses Elias, *s, a, w, sp*, Wichita, Kan. S.B. (U. of California) '14.
- Stotter, Arthur Lesley, *s, a, w, sp*, Cleveland, Ohio. S.B. '15.
- Straith, Claire LeRoy, *s, a, w, sp*, Detroit, Mich. S.B. (U. of Michigan) '15.
- Sweet, Winfield Carey, *s, a, w, sp*, Chicago. S.B. (Colgate U.) '13.

* Deceased.

- Thatcher, Harvey Shepard, *s, a, w, sp*, Utica, Ohio. A.B. (Ohio State U.) '09.
 Thomas, William A., *s, a*, Chicago. Ph.B. '12.
 Torpin, Richard Ivan, *s, a, w, sp*, Oakdale, Neb. A.B. (Nebraska Wesleyan U.) '13.
 Townsend, Eugene Herbert, Jr., *a, w, sp*, New Lisbon, Wis. S.B. (U. of Wisconsin) '14.
 Tulisalo, Oscar Wilhelm, *s, a, w*, Belle Fourche, S.D. A.B. (U. of South Dakota) '14.
 Venable, George Lyle, *s, a, w, sp*, Oskaloosa, Iowa. S.B. '14.
 Visher, John William, *s, a, w, sp*, Chicago. A.M. (U. of South Dakota) '15.
 Volini, Italo Fred, *s, a, w, sp*, Chicago. S.B. '15.
 Warszewski, Henry Edward, *s, a, w, sp*, Chicago. S.B. '15.
 Washburn, Arthur Manfield, *s, a, w*, Burlington, Iowa. S.B. '15.
 Watts, Clyde Franklin, *s, a, w, sp*, Lancaster, Ky. A.M. (Kingswood C.) '13.
 Weston, Burton Raymond, *s, a, w, sp*, Mason City, Iowa. S.B. (U. of Wisconsin) '13.
 Williams, Frank Argyle, *s, a, w, sp*, Lockbourne, Ohio. S.B. '15.
 Winn, Henry Newton, *s, a, w, sp*, Poynette, Wis. A.B. (U. of Wisconsin) '15.
 Woodward, Lee Roy, *s, a, w, sp*, Mason City, Iowa. S.B. (U. of Iowa) '09.
 Zaegel, Robert Lupinski, *s*, Sheboygan, Wis. S.B. (U. of Wisconsin) '14.

MEN—130

WOMEN—14

TOTAL—144

SUMMARY OF ATTENDANCE FOR THE YEAR 1916-17

	Men	Women	Total
Freshmen and Sophomores.....	319	27	346
Special students	127	34	161
Juniors	131	8	139
Seniors	130	14	144
Practitioners	32	6	38
Total, less duplicates	699	80	779



